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SESSIONAL PAPERS.

VOL. XX.—PART V.

SECOND SESSION OF SIXTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO.

SESSION 1888.

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1888.

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ARRANGED ALPHABETICALLY.

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Accounts (*Dominion and the Provinces*)	49	*Printed.*
Accounts, Public	15	"
Agricultural and Arts, Report	10	"
Agricultural College, Report	16	"
Agricultural Societies, Analysis	60	*Not printed.*
Asylums, Report	13	*Printed.*
Bertie, Lots in	63	*Not printed.*
Births, Marriages and Deaths, Report	3	*Printed.*
Blind Institute, Report	6	"
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Canada Temperance Act, fines imposed	64	*Not printed.*
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Chatham Collegiate Institute	23	*Not printed.*
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Elgin House of Industry, Report	28	*Not printed.*
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Evenden James, bequest of	31	*Not printed.*

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Goulbourne, James	77	*Not printed.*
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Hospitals, Report	57	*Printed.*
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No. 1.. Report of Stipendiary Magistrate Borron. (*Printed.*)

No. 2.. Detailed Report of the Inspector of Insurance. (*Printed.*)

No. 3.. Report relating to the registration of Births, Marriages and Deaths in the Province of Ontario, for the year 1886. (*Printed.*)

No. 4.. Report of the Ontario Agricultural and Experimental Union. (*Printed.*)

No. 5.. Forestry Report. (*Printed.*)

No. 6.. Report upon the Ontario Institution for the Education and Instruction of the Blind, Brantford, for the year ending 30th September, 1887. (*Printed.*)

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No. 8.. Report upon the Ontario Institution for the Education and Instruction of the Deaf and Dumb, Belleville, for the year ending 30th September, 1887. (*Printed.*)

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No. 14.. Report of the Librarian, on the state of the Library. (*Printed.*)

No. 15... Public Accounts of the Province, for the year 1887. (*Printed.*)

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No. 18.. Report of the Commissioner of Public Works, for the year 1887. (*Printed.*)

No. 19.. Report of the Department of Immigration, for the year 1887. (*Printed.*)

No. 20.. Report of the Commissioner of Crown Lands, for the year 1887. (*Printed.*)

No. 21.. Report of the Entomological Society, for the year 1887. (*Printed.*)

No. 22.. Copy of an Order in Council, approving of certain regulations respecting the Education Department. (*Not printed.*)

No. 23.. Copy of an Order in Council, raising the High School at the Town of Chatham to the status of a Collegiate Institute. (*Not printed.*)

No. 24.. Copy of an Order in Council, approving of schedules of particulars respecting certain Indentures of Agreement entered into by the Minister of Education with certain publishers in regard to printing, publishing and selling Text Books. (*Printed.*)

No. 25.. Regulations prescribed by the Lieutenant-Governor in Council, under the Ontario Factories Act. (*Printed.*)

No. 26.. Report of the Assistant Inspector of Public Schools, upon the condition of the French Schools in the United Counties of Prescott and Russell. (*Printed.*)

No. 27.. Regulations respecting Upper Canada College. (*Not printed.*)

No. 28.. Report of the Inspector of the Elgin House of Industry, for the year ending 31st October, 1887. (*Not printed.*)

No. 29.. Copy of an Order in Council, approved on the 2nd February, 1888, commuting the fees payable to R. O'Hara, Esquire, Local Master and Deputy Registrar at Chatham. (*Printed.*)

No. 30.. Papers relating to a certain Mortgage, belonging to the estate of the late Andrew Mercer. (*Not printed.*)

No. 31.. Papers relating to the bequest of one James Evenden, formerly of the Town of Barrie, to the Deaf, Dumb and Blind Institution of Upper Canada. (*Not printed.*)

No. 32.. Copies of Orders in Council, commuting the fees of certain Surrogate Court Judges. (*Printed.*)

No. 33.. Return of a copy of the Charter of the Ontario Grain and Seed Company with the names of the Incorporators; list of stockholders and amount of stock paid up, as shown by any records of the Department, together with copies of all documents and papers filed with the Government upon or relating to the Charter. Also, copies of all correspondence between the Government and the Company, or others, in relation to the Company. Also, statement of any moneys deposited with the Government, if any, and any other information in the possession of the Government relating to the Company. (*Not printed.*)

No. 34.. Statement of the affairs of the Toronto General Trusts Company, under 35 Vic., c. 83, s. 13, for the year 1887. (*Not printed.*)

No. 35.. Report upon the Division Courts of Ontario. (*Printed.*)

No. 36.. Return shewing, as to each vacancy which has occurred since the first day of January, 1884, in the office of Sheriff, Registrar of Deeds, or County Crown Attorney, when the vacancy occurred; how it was created; when it was filled; by whom it was filled; and shewing also, which of such vacancies still remain unfilled. (*Printed,*)

No. 37.. Correspondence relative to the appointment of Queen's Counsel, between the Federal and Provincial Governments. (*Printed.*)

No. 38.. Return of copies of all Orders in Council or other regulations, with regard to Timber Dues, passed since the first day of January, 1886. (*Printed.*)

No. 39.. Return, shewing all estimates of expenses of License Commissioners, and in connection with the enforcement of the Canada Temperance Act, approved by the Provincial Secretary of Ontario, for the years 1886-87 and 1887-88, including the salary and expenses of Police Magistrate. (*Printed.*)

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No. 43.. Return shewing the number of lunatics in the County Gaols of the Province for each month from the first day of March, 1886, to the first day of March, 1887, and shewing also the number of days each lunatic was detained in the gaol. The number of buildings now under construction for the accommodation of the insane. The number they are expected to accommodate, and when the buildings will be ready for use. (*Not printed.*)

No. 44.. Report of the Commissioners of the Queen Victoria Niagara Falls Park for the year 1887. (*Printed.*)

No. 45.. Return of copies of all Orders in Council with respect to the investment of Sinking Funds of Municipalities under the provisions of the Municipal Act. (*Printed in part.*)

No. 46.. Report of the Commissioners appointed to revise and consolidate the Public Statutes of the Province. (*Printed.*)

No. 47.. Return from the Queen's Printer as to the disposal of the Sessional Statutes for the year 1887. (*Not Printed.*)

No. 48.. Return from the Queen's Printer as to the disposal of the Revised Statutes for the year 1887. (*Not printed.*)

No. 49.. Correspondence relative to the Accounts between the Provinces of Ontario and Quebec and the Dominion of Canada (*Printed.*)

No. 50.. Bursar's statement of the affairs of Upper Canada College, for the year ending 30th June, 1887. (*Printed.*)

No. 51.. Return shewing the number of persons committed to Gaol in each County in the Province, under Division Court process, during the year 1887; the number of those who remained in Gaol for a period exceeding one month, together with the number of those against whom the judgment recovered, was for an amount less than ten dollars. (*Printed.*)

No. 52.. Return shewing the various sums expended in the last five years for Colonization Road purposes; the counties and districts in which the money was spent; the amount expended in each county and district respectively. Also, the amount, if any, spent for similar purposes, since Confederation, in the Counties of Prescott, Russell, Glengarry, Stormont and Dundas. (*Not printed.*)

No. 53.. Return of copies of all correspondence with reference to the claim of Mr. F. B. Wilkins to be placed on the list of superannuated teachers. (*Not printed.*)

No. 54.. Return shewing the number of convictions returned to the Clerks of the Peace of the several Counties in the Province during the year 1885. The number of such convictions severally made by Police Magistrates; Reeves, acting as Justices of the Peace, *ex-officio*, and duly qualified Justices of the Peace. Also, shewing the number in each County, of qualified Justices of the Peace receiving copies of the Statutes of Ontario for the same year. (*Printed.*)

No. 55.. Return of all Commissions of Inquiry issued during the years 1886 and 1887; the subject of the Inquiry in each case; the names of the Commissioners, their salary or other remuneration, and a statement of the expenses of each such Inquiry. Such Return to show whether the Commissioners, or any of them, held any, and if so, what other office or employment in the publice service of the Province. (*Printed.*)

No. 56.. Statement of the answers referred by members of the Grand Trunk Insurance and Provident Society, to certain questions submitted to them, in connection with the operations of the Workman's Compensation for Injuries Act." (*Printed.*)

No. 57.. Report upon the Hospitals of the Province, for the year ending 30th September, 1887. (*Printed.*)

No. 58.. Statement of the Returns forwarded to the Department of the Provincial Secretary of the fees and emoluments received by the Registrars of Ontario for the year 1887, made in accordance with the provisions of R. S. O., c. 111, s. 97, and 43 Vic. cap. 3, sec. 2, with which are contrasted receipts of same nature in 1885 and 1886. (*Printed.*)

No. 59.. Report of the Master of Titles, for the year 1887. (*Printed.*)

No. 60.. Report of the Electoral, District, Township and Horticultural Societies of Ontario, organized under the Agricultural and Arts Act. (*Not printed.*)

No. 61.. Return shewing the indebtedness of any municipality to the Government, whenever the same may be in arrears for over one year, either on account of principle or interest. (*Printed.*)

No. 62.. Return shewing the sum at which the contract for constructing drainage works in the Township of Raleigh was let to John Elliott; the sum paid to the said contractor; the sums, if any, paid to each of the sub-contractors, with their names and date of payment; also, the name of the engineer or other person employed by the Ontario Government on whose recommendation or report such payments have been made, together with copies of such recommendation or report, if any. Also, a Return of all correspondence and communications, if any, between any member or officer of the Government, and any one on behalf of the said sub-contractors since the first day of January, 1879. (*Not printed.*)

No. 63.. Return shewing the name of the several applicants for grants from the Crown, of the water lots in front of lots 5, 6, 7 and 8, in the first concession of the Township of Bertie, fronting on Niagara River. The names of all the parties to whom patents therefor issued, the dates of such patents and the consideration paid in each case. (*Not printed.*)

No. 64.. Return shewing the amounts received by County or City Treasurers throughout the Province, on account of fines imposed for violations of the Scott Act. (*Not printed.*)

No. 65.. Return shewing the amounts paid up to this date for land expropriated for Niagara Falls Park purposes, to whom paid and dates of payment. Also, a detailed statement of all moneys expended by the Government (other than for the purchase of land) through the Park Commissioners or otherwise, during the year 1887, and for what services and to whom paid. Also, all moneys received by the Commissioners on account of the sale of buildings, or on any other account during the year 1887; also, shewing names of all parties appointed to any office in connection with the Park up to this date, and also, shewing the nature of their employment; their salaries, and the dates of their appointment. (*Printed.*)

No. 66.. Statement of moneys received and expended on account of the Mercer estate during the year 1887. (*Printed.*)

No. 67.. Return of copies of all correspondence between the Governments of Ontario and the Dominion in reference to an alleged claim of the Six Nation Indians to compensation for lands drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company in or about the year 1833. (*Printed.*)

No. 68. Statement of the Bursar of the University of Toronto, shewing cash transactions, for the year ending 30th June, 1887. (*Printed.*)

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No. 72. Report of the Secretary and Registrar of the Province, for the year 1887. (*Printed.*)

No. 73. Correspondence respecting the Land and Timber in the recently Disputed Territory of the Province. (*Printed.*)

No. 74. Return of copies of the evidence taken by Æmilius Irving, Esquire, Q.C., with reference to the Ontario Grain and Seed Company, and of the Report, if any, made by him with regard to the said Company, its formation, or operations. (*Not printed.*)

No. 75. Return of copies of all correspondence between the Minister of Education and any publisher or other person respecting the authorization of text books, or the right to publish the same, subsequent to that already brought down. (*Printed.*)

No. 76. Report upon Mechanics' Institutes. (*Printed.*)

No, 77. Return of the Writ of Supersedeas issued for the removal of James Goulbourne, Esquire, from the Commission of the Peace for the County of Peterborough. Also, copies of all petitions or other applications for his removal, and copies of all correspondence with reference to such petitions or applications or the said removal. Also, copies of all reports to the Executive Council or His Honour the Lieutenant-Governor, with reference to the said matters, or any of them. (*Not printed.*)

No. 78. Copy of an Order in Council commuting the fees payable to His Honour Judge Lazier under the Surrogate Courts Act. (*Not printed.*)

No. 79. Return of copies of all correspondence and papers in any way relating to the removal of Mr. B. B. Miller, of Wiarton, from the offices of the Clerk of the Division Court, Issuer of Marriage Licenses, and from the Commission of the Peace. (*Not printed.*)

No. 80. Return shewing the Counties in Ontario that offer a bounty for the destruction of Wolves; the amount offered and the amount paid in each year by such Counties since 1880. (*Not printed.*)

EIGHTEENTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

HOUSES OF REFUGE

AND

ORPHAN & MAGDALEN ASYLUMS

AIDED BY THE

PROVINCE OF ONTARIO,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1887.

Printed by Order of the Legislative Assembly.

Toronto:
PRINTED BY WARWICK & SONS, 26 AND 28 FRONT STREET WEST.
1888.

Office of the
Inspector of Prisons and Public Charities, Ontario,
Parliament Buildings, Toronto, December, 1887.

Sir,—I have the honour to transmit herewith, to be presented to His Honour, the Lieutenant-Governor, the Eighteenth Annual Report upon the Houses of Refuge and Orphan and Magdalen Asylums, aided by the Province. being for the year ending 30th September, 1887.

I have the honour to be, Sir,
Your most obedient servant,

R. CHRISTE,
Inspector.

The Honourable
Arthur Sturgis Hardy, Q.C., M.P.P.,
Secretary for the Province of Ontario,
Toronto.

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HOUSES OF REFUGE AND ORPHAN AND MAGDALEN ASYLUMS.

EIGHTEENTH

ANNUAL REPORT

OF THE

Inspector of Prisons & Public Charities

FOR THE

PROVINCE OF ONTARIO.

PARLIAMENT BUILDINGS,
Toronto, October, 1887.

To the Honourable SIR ALEXANDER CAMPBELL, *Lieutenant-Governor of the Province of Ontario.*

MAY IT PLEASE YOUR HONOUR:—

Herewith I beg to submit the Eighteenth Annual Report upon the Houses of Refuge and the Orphan and Magdalen Asylums aided by the Province of Ontario being for the official year ending on the 30th September, 1887.

I have the honour to be,
Your Honour's most obedient servant,

R. CHRISTIE,
Inspector.

HOUSES OF REFUGE.

The institutions which are aided by the Government under this head have had the Home for Aged Women, London, added to them since the previous report was written, making the number 21 now receiving Government aid.

The table which follows shews, in a summarized form, the work done in each Refuge during the year. For convenience of comparison I have added at the foot of the table the totals of the similar summary given in the preceding year's report:—

NAMES OF REFUGES.	Location.	Number of persons in the Refuges on 1st October, 1886.	Number admitted to Refuges during the year.	Total number under lodgment during the year ending 30th Sept., 1887.	Number discharged during the year.	Number of deaths during the year.	Number of persons remaining in Refuges on the 30th Sept., 1887.
House of Industry	Toronto	69	69	138	60	9	69
House of Providence	"	279	230	509	171	55	283
Home for Incurables	"	63	13	76	3	9	64
Aged Womens' Home	"	18	9	27	7	2	18
House of Refuge	Hamilton	73	107	180	89	5	86
Home for Aged Women	"	20	3	23	3	.....	20
House of Industry	Kingston	36	96	132	87	4	41
House of Providence	"	55	71	126	62	18	46
Home for Aged and Friendless	London	6	2	8	1	1	6
Roman Catholic House of Refuge	"	39	24	63	13	4	46
Home for Aged Women	"	5	12	17	5	....	12
St. Patrick's House of Refuge	Ottawa	108	160	268	151	11	106
St. Charles' Hospice	"	76	26	102	18	10	74
House of Providence	Guelph	49	75	124	77	7	40
Protestant Home (Refuge Branch)	St. Catharines	2	.....	2	.....	.....	2
The Home	St. Thomas	12	12	24	6	4	14
House of Providence	Dundas	88	33	121	26	5	90
Home for the Friendless	Chatham	13	13	26	12	2	12
Widow's Home	Brantford	12	3	15	1	3	11
Home for the Friendless	Belleville	10	11	21	11	.....	10
Protestant Home	Peterboro	15	9	24	9	3	12
Totals		1,048	978	2,026	812	152	1,062
Totals for 1886		990	1,026	2,016	831	151	1.034

It will thus be seen that the number of persons maintained fell from 1,026 in 1886 to 978 in 1887, a slight decrease of 48, and that at the close of the year, the population of the Refuges was greater by 10 persons than at the opening. The number of discharges was 19 less in 1887 than in 1886, and one more death occurred.

The usual information from each Refuge, in respect of sex, religious denominations, nationalities, and previous residences of the inmates, has been summarized as under:—

Sex.

Male	942	
Female	1,084	
	——	2,026

Religious Denominations.

Roman Catholic	1,486	
Protestant	540	
	——	2,026

Nationalities.

Canadian	390	
English	368	
Irish	1,060	
Scotch	112	
United States	49	
Other Countries	47	
	——	2,026

Previous Residence.

Received from Cities or Towns in which the Refuges are located	1,275	
Received from Counties in which the Refuges are located	200	
Received from other Counties in the Province	346	
Emigrants and Foreigners	205	
	——	2,026

The next table shews the collective stay of inmates in each of the Institutions, upon which the amount of aid to be granted by the Government is based. The totals of the previous year are also given at the foot of the table :—

NAMES OF REFUGES.	Location.	Total number of inmates during the year.	Total stay in days during the year.	Average stay per inmate in days.
House of Industry	Toronto	138	28771	209
House of Providence	do.	509	104047	204
Home for Incurables	do.	76	22052	290
Aged Women's Home	do.	27	6972	258
House of Refuge	Hamilton	180	31340	174
Home for Aged Women	do.	23	7351	319
House of Industry	Kingston	132	15829	120
House of Providence	do.	126	21173	168
Home for the Aged and Friendless	London	8	2355	294
Roman Catholic House of Refuge	do.	63	16700	265
Home for Aged Women	do.	17	2728	160
St. Patrick's House of Refuge	Ottawa	268	40173	150
St. Charles' Hospice	do.	102	27448	269
House of Providence	Guelph	124	15795	127
Protestant Home (Refuge Branch)	St. Catharines	2	730	365
The Home	St. Thomas	24	4282	178
House of Providence	Dundas	121	33580	277
Home for the Friendless	Chatham	26	4925	190
Widow's Home	Brantford	15	3984	265
Home for the Friendless	Belleville	21	4281	204
Protestant Home	Peterboro'	24	4774	199
Totals		2026	399290	197
Totals for 1886		2016	388530	193

The total stay of the inmates in 1887 was 10,760 days longer than in 1886. The average stay per inmate was greater by four days.

The next table shews the amount of grant which each Refuge has earned. The collective stay being larger, the aggregate of the grant has, of course, also increased.

NAME OF REFUGES.	Location.	Aggregate stay of inmates.	Fixed allowance at 5 cents per day for aggregate stay of inmates.	Amount received from all sources other than Government.	Supplementary allowance of $\frac{1}{4}$ of such receipts, provided amount does not exceed the 2 cents allowance.	Supplementary allowance of 2 cents per day.	Total Government allowance to each House of Refuge for the year 1888.
			$ c.	$ c.	$ c.	$ c.	$ c.
House of Industry	Toronto	28771	1438 55	10813 51		575 42	2013 97
House of Providence	do.	74164	3708 20	16008 79		1483 28	9673 93
do. do. (Incurable Ward)	do.	29883	2988 30			1494 15	
Home for Incurables	do.	22052	2205 20	7448 49		1102 60	3307 80
Aged Women's Home	do.	6972	348 60			139 44	488 04
House of Refuge	Hamilton	31340	1567 00	4523 24		626 80	2193 80
Home for Aged Women	do.	7351	367 55			147 02	514 57
House of Industry	Kingston	15829	791 45	2765 81		316 58	1108 03
House of Providenee	do.	21173	1058 65	4901 65		423 46	1482 11
Home for the Aged and Friendless	London	2355	117 75	3060 66		47 10	164 85
Roman Catholic House of Refuge	do.	16700	835 00	10856 24		334 00	1169 00
Home for Aged Women	do.	2728	136 40	882 47		54 56	190 96
St. Patrick's House of Refuge	Ottawa	40173	2008 65			803 46	2812 11
St. Charles' Hospice	do.	27448	1372 40	3024 15		548 96	1921 36
House of Providenee	Guelph	15795	789 75	2103 66		315 90	1105 65
Protestant Home (Refuge Branch)	St. Catharines	730	36 50			14 60	51 10
The Home	St. Thomas	4282	214 10	863 39		85 64	299 74
House of Providence	Dundas	33580	1679 00	4804 92		671 60	2350 60
Home for the Friendless	Chatham	4925	146 25	2591 47		98 50	344 75
Widow's Home	Brantford	3984	199 20	569 64		79 68	278 88
Home for the Friendless	Belleville	4281	214 05	389 28		85 62	299 67
Protestant Home	Peterboro	4774	238 70	1186 05		95 48	334 18
Totals		399290	22461 25	76793 42		9543 85	32105 10
Total for 1886		388530	21913 65	78401 98		9262 89	31176 54

The last table exhibits the cost of maintaining the Refuges. Following it will be found the separate reports upon each institution:—

NAMES OF REFUGES.	Location.	Aggregate stay of inmates.	Cost of Dietaries.	Expenditure for fuel, salaries and wages, and all general expenses.	Total expenditure, exclusive of extraordinary repairs.	Average cost per inmate per day.
			$ c.	$ c.	$ c.	Cents.
House of Industry	Toronto	28771	5306 26	6556 69	11862 95	41.32
House of Providence	"	104047	9381 80	12131 77	21513 57	20.67
Home for Incurables	"	22052	3173 99	4684 10	7858 09	35.68
Aged Women's Home	"	6972	.....	.....	.....	.....
House of Refuge	Hamilton	31240	3444 14	2854 44	6298 58	20.09
Home for Aged Women	"	7351	.....	*	*	.....
House of Industry	Kingston	15829	1269 85	1322 91	2592 76	16.38
House of Providence	"	21173	3141 49	3551 83	†6693 32	.....
Home for the Aged and Friendless	London	2835	1357 20	2096 16	†3453 36	.....
Roman Catholic House of Refuge	"	16700	5723 58	5084 65	†10808 23	.....
Home for Aged Women	"	2728	374 90	823 10	1198 00	43.90
St. Patrick's House of Refuge	Ottawa	40173	.....	*	*	.....
St. Charles' Hospice	"	27448	1380 35	3166 85	4547 20	16.56
House of Providence	Guelph	15795	1166 67	2377 82	3544 49	22.44
Protestant Home (Refuge Branch)	St. Catharines	730	.....	*	*	.....
The Home	St. Thomas	4282	507 87	639 26	1147 13	26.79
House of Providence	Dundas	33580	5372 25	3327 14	8699 39	25.90
Home for the Friendless	Chatham	4925	543 69	1153 59	1697 28	34.46
Widows' Home	Brantford	3984	350 73	389 73	740 46	18.58
Home for the Friendless	Belleville	4281	474 32	187 18	661 50	15.45
Protestant Home	Peterboro'	4774	610 54	500 85	1111 39	23.28
Totals		399290	43579 63	50848 07	94427 70	.....
Total for 1886		388530	41651 29	57014 16	98665 45	.....

* Included with Orphanage Branch.

† Includes expenditure of Orphanage Branch.

SEPARATE REPORTS.

HOUSE OF INDUSTRY, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries.

Movements of Inmates.

In residence, 1st October, 1886	69	
Admitted	69	
Total nunber of inmates		138
Discharged	60	
Died	9	
In residence, 30th September, 1887	69	
		138

Places admitted from.

From the City of Toronto	133	
From the County of York and other counties	1	
Emigrants and foreigners	4	
		138

Sex.

Males	97	
Females	41	
		138

Nationalities.

English	45	
Irish	67	
Scotch	13	
Canadian	8	
Other countries	5	
		138

Religious Denominations.

Protestant	104	
Roman Catholic	34	
		138

Receipts.

From the Province of Ontario	$2,580 00
From the City of Toronto	6,300 00
From inmates	222 50
Income from property belonging to the House	1,868 15
Subscriptions and donations of private individuals	699 63
From other sources	1,723 23
	$13,393 51

Expenditures.

Food of all kinds	$5,306 23
Clothing, furniture and furnishings	511 95
Fuel, light and cleaning	4,188 05
Salaries and wages	750 00
Other expenditures	3,882 00
	$14,638 23

Government Aid for 1888.

Allowance for 28,771 days, at 5 cents	$1,438 55
Supplementary aid, at 2 cents per day	575 42
Total	$2,013 97

Copies of the reports made to the Government by me upon this Refuge are annexed.

"My first inspection of the House of Industry, Toronto, for the current year, was made on the 18th January. On that date the inmates numbered 84—57 males and 27 females. The general condition of the House was good. The corridors and dormitories were clean and well kept, and evidence of thoughtful attention to the wants of the inmates was manifest in many ways.

"One female only was confined to bed from illness, and the general health of the Institution has been good for the past year.

"By reference, I found that the average number of deaths has been fourteen for quite a number of years; during the past year, however, the number was only eight.

"The out-door relief furnished by this Charity, continues to be a large share of the work undertaken. Since the 5th December last, 718 families have been relieved by the distribution to the necessitous poor. Two members of the Board were drafted from the whole number (40) to attend to this work, and the Committee so chosen meets twice each week to decide upon the cases needing assistance. The work is well systemized, and conducted in such a manner as to insure the greater number of the specially needy in the city being reached, and the relief afforded is evenly and impartially distributed.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the House of Industry, Toronto, on the 23rd August, when there were 61 resident inmates being cared for, 40 adult males and 21 adult females.

"Good order appeared to prevail, and there was every evidence of the exercise of good judgment and care in the management of the Institution. The out-door relief afforded is a leading feature in its operations; for the year ending December, 1886, 1,076 families were assisted during the winter by distributing supplies of bread, wood, coal and coke, and where sickness existed groceries were added.

"The annual report shews that 31,471 loaves of bread were distributed, 158 cords of wood, 591 tons of coal, 2,116 bushels of coke, and groceries to the amount of $300.

"These figures shew a considerable increase in the expenditure of this charity for out-door relief.

"I found all parts of the Institution cleanly and neatly kept. The books also were properly entered up."

HOUSE OF PROVIDENCE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries.

Movements of Inmates.

In residence, 1st October, 1886	279	
Admitted	230	
Total number of inmates		509
Discharged	171	
Died	55	
In residence, 30th September, 1887	283	
		509

Places admitted from.

City of Toronto	343	
County of York, and other counties of Ontario	157	
Emigrants and foreigners	9	
		509

Sex.

Male	170	
Female	339	
		509

Nationalities.

English	41	
Irish	331	
Scotch	4	
Canadian	119	
Other countries	14	
		509

Religious Denominations.

Protestant	22	
Roman Catholic	487	
		509

Receipts.

From the Province of Ontario	$9,296 81
From the City of Toronto	1,000 00
From inmates, in payment of board	2,135 50
Subscriptions, donations, and bequests of private individuals	10,663 14
From other sources	2,210 15
	$25,305 60

Expenditures.

Food of all kinds	$ 9,381 80
Clothing, furniture and furnishings	2,739 80
Fuel, light and cleaning	2,806 64
Wages	.....
Ordinary repairs	971 28
Additions to buildings	3,750 00
Other expenditures	5,614 05
	$25,263 57

Government Aid for 1888.

Allowance for 74,164 days, at 5 cents	$3,708 20	
Supplementary aid, 2 cents per day	1,483 28	
		$5,191 48

Incurable Branch.

Allowance for 29,883 days, at 15 cents	4,482 45
Total	$9,673 93

Copies of the reports made to the Government by me upon this charity are annexed :—

"I made my first inspection of the House of Providence, Toronto, for the current year on the 27th January.

"On that day there were in residence 98 adult males, and 197 adult females, making a total population of 295. Of this number there were 97 incurables on the list, attested to by the certificates of the medical men attending; but since the first of the year 14 of these had died, and 2 were removed by their friends, leaving 81 as the number now being cared for, namely 24 males and 57 females.

"The books I found to be correctly kept, though they had not been posted for some days previous to my visit, owing to pressure of other duties and occasioning the absence of the keeper of the records. Exclusive of the above numbers there were 135 children in charge temporarily, but who properly belong to the Orphan's Home at Sunnyside.

"I found the Institution in excellent order, and ample evidence of care and good management in all its departments.

"I made an inspection of this Institution on Oct. 24th, and found there were 97 adult males, 185 adult females, and 135 youths under 12 years of age in residence. 77 adults—23 males and 54 females were duly certified as incurable, and were domiciled in the incurable wards.

"Many of the people were old and very infirm. Every provision appeared to be made for their comfort, and they were evidently receiving kind and considerate treatment.

"I found the house in excellent order throughout. The children I saw in the schools. They were clean and nicely clad, and appeared to have all necessary attention shewn to them."

HOME FOR INCURABLES, TORONTO.

Full particulars of the operations of this Institntion will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	63	
Admitted	13	
Total number of inmates		76
Discharged	3	
Died	9	
In residence, 30th September, 1887	64	
		76

Places admitted from.

From City of Toronto	66	
From the County of York and other counties	10	
		76

Sex.

Male	32	
Female	44	
		76

Nationalities.

English	26	
Irish	19	
Scotch	12	
Canadian	19	
		76

Religious Denominations.

Protestant	69	
Roman Catholic	4	
Other religions	3	
		76

Receipts.

From the Province of Ontario	$3,166 35
From the City of Toronto	1,000 00
From other municipalities	182 37
Payments from inmates	1,170 35
Subscriptions and donations	5,008 69
Other sources	87 38
	$10,615 14

Expenditure.

Food of all kinds	$3,173 99
Clothing and furnishings	423 00
Fuel, light, and cleaning	945 76
Salaries and wages	2,056 25
Repairs	267 75
Other expenses	3,012 24
	$9,878 99

Government Aid for 1888.

Allowance for 22,052 days at 10 cents per day	$2,205 20
Supplementary grant, 5 cents per day	1,102 60
Total	$3,307 80

Copies of the reports made to the Government by me upon this Home are annexed :—

"I made a visit of inspection to the Home for Incurables, Toronto, on the 19th January, and saw the 59 inmates then being cared for, namely, 23 males and 36 females.

"The rules of admission to this Institution are stringent, but have evidently been adopted with a view to the best results to those who become its inmates.

"The selections are made of those who are suffering from such diseases as require the longest period of care and attention. Those afflicted with contagious diseases are excluded, and a ward is now in course of construction for the reception of patients afflicted with cancer.

"The Institution was found to be in its usual state of excellent order and cleanliness, and the books were kept correctly.

I made a second inspection of this institution for the current year, on the 26th August. On that day there were twenty-six males and thirty-six female patients being cared for, and one youth under twelve years.

I found the Home in its usual condition, in good order, except in the west end where the work of constructing the new extension and wing was in progress.

The additions are extensive, and will accommodate quite a number of inmates. Examination showed that it was rapidly approaching completion and with the exception of want of provision for proper ventilation, in every other respect the appointments are excellent. I afterwards learned that good ventilation would be thoroughly provided for with most approved appliances. When that is accomplished the building will be very complete.

AGED WOMEN'S HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	18	
Admitted	9	
Total number of inmates		27

Discharged	7	
Died	2	
In residence, 30th September, 1887	18	
		27

Religious Denominations.

Protestant	27	
		27

Nationalities.

English	8	
Irish	11	
Canadian	1	
Other countries	7	
		27

Places admitted from.

City of Toronto	25	
Town of Ingersoll	2	
		27

The receipts and expenditures of this Home are included with those of the Industrial Refuge.

Government aid for 1888.

Allowance for 6,972 days, at 5 cents	$348 60
Supplementary aid, at 2 cents per day	139 44
Total	$488 04

Copies of the reports made to the Government by me upon this Home are annexed:—

"I made an inspection of the Aged Women's Home, Toronto, on the 26th January.

"The register showed that 19 persons were then dependent upon this charity. All of these I saw, and their appearance indicates that they were fit and proper subjects for the care of the institution. The majority of them were very old, their average age being over 72 years. The Home was in first-rate order, scrupulously clean and well kept.

"I beg to report for the information of His Honour, the Lieutenant-Governor in Council, that the Aged Women's Home, Toronto, was inspected by me on the 23rd August.

"There were 19 old and infirm women being cared for, all of whom appeared to be fit subjects for the shelter and comfort of such an institution. The books were examined and found to be correct, with the exception of the record which was not fully entered up."

HOUSE OF REFUGE, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates

In residence, 1st October, 1886		73
Admitted		107
Total number of inmates		180
Discharged		89
Died		5
In residence, 30th September, 1887		86
		180

Places admitted from.

City of Hamilton		169
County of Wentworth and other counties		6
Other places		5
		180

Sex.

Male		113
Female		67
		180

Religious Denominations.

Protestant		108
Roman Catholic		72
		180

Nationalities.

Canadian		19
English		31
Irish		94
Scotch		24
Other countries		12
		180

Receipts.

From the Government of Ontario	$1,775 34
" City of Hamilton	4,143 54
" Municipalities	117 00
" Inmates	272 70
	$6,298 58

Expenditures.

Food of all kinds	$3,444 14
Clothing, furnishings, etc	425 67
Fuel	605 00
Salaries and wages	876 00
Ordinary repairs	317 50
Other expenses	630 27
	$6,298 58

Government Aid for 1888.

Allowance for 31,340 days, at 5 cents	$1,567 00
Supplementary aid, at 2 cents per day	626 80
Total	$2,193 80

Copies of the reports made to the Government upon this Refuge by Dr. O'Reilly are annexed:—

"I made an inspection of the House of Refuge, Hamilton, on the 8th April.

"The institution was in as good order as the character of the building would admit of.

"A new smallpox hospital has been erected to replace the structure destroyed by fire last year; it has accommodation for thirty beds, and is a creditable building.

"The Institution was in its usual state of cleanliness and good order.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the House of Refuge, Hamilton, on the 14th October.

"There were in residence on that date 53 males, 34 females, and 3 children; total 90. Nearly all the adult inmates are aged or infirm, or both, and yet the fires were not lighted. As a consequence they were all suffering more or less from the cold. The House was in its usual untidy, unsatisfactory condition, but I do not blame the persons in charge, as it is simply impossible to have such a building as this otherwise."

HOME FOR AGED WOMEN, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1886	21	
Admitted	2	
Total number of inmates		23
Died	3	
In residence, 30 September, 1887	20	
		23

Places admitted from.

City of Hamilton	23	
		23

Religious Denomination.

Protestant	23	
		23

Nationalities.

English	7	
Irish	5	
Scotch	5	
Canadian	6	
		23

The receipts and expenditures of this Institution are included with those of the Protestant Orphans' Home, Hamilton, and therefore details cannot be given here.

Government aid for 1888.

Allowance for 7,351 days, at 5 cents	$367 55
Supplementary aid, at 2 cents	147 02
Total	$514 57

A copy of the report made to the Government upon this home by Dr. O'Reilly ard annexed :—

"I beg to report for the information of His Honour the Lieutenant Governor in Council, that I inspected the Aged Womens' Home, Hamilton, on the 14th October.

"There were on that date 20 old women in the building. They were well housed and comfortably provided for in all respects."

HOUSE OF INDUSTRY, KINGSTON.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1886	36	
Admitted	96	
Total number of inmates		132
Discharged	87	
Died	4	
In residence, 30th September, 1887	41	
		132

Places admitted from.

City of Kingston	57	
County of Frontenac	11	
Other counties of Ontario	50	
Other places	14	
		132

Sex.

Male	106	
Female	26	
		132

Religious Denominations.

Protestant	94	
Roman Catholic	38	
		132

Nationalities.

Canadian	33	
English	24	
Irish	55	
Scotch	16	
Other countries	4	
		132

Receipts.

From the Province of Ontario	$1,097 53
From the City of Kingston	800 00
Payment from inmates	336 00
Subscriptions and donations	1,629 81
	$3,863 34

Expenditures.

Food of all kinds	$1,269 85
Clothing, furniture and furnishings	206 63
Fuel	290 85
Salaries and wages	395 00
Repairs, ordinary	85 38
Other expenses, including rent and taxes	1,448 97
	$3,696 68

Government Aid for 1888.

Allowance for 15,829 days, at 5 cents	$791 45
Supplementary aid, at 2 cents per day	316 58
	$1,108 03

Copies of the reports made by me to the Government upon this Refuge are annexed :—

"I made an inspection of the House of Industry, Kingston, on the 28th April. The inmates numbered 38, namely, 23 males and 15 females, all of whom were aged and in need of the shelter of such an institution.

"No change in the condition or work of this charity was noticeable since the date of my last visit. The rooms in the new wing, which were at that time being furnished, were now nearly all occupied.

"The books I found to be in proper order.

"I made an inspection of this Institution on the 4th Sept., and saw all the inmates then in residence, 27 males and 16 females.

"The apartments were in a fair state of order and cleanliness, and the books I found to be properly kept."

HOUSE OF PROVIDENCE, KINGSTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	55	
Admitted	71	
Total number of inmates		126
Discharged	62	
Died	18	
In residence, 30th September, 1887	46	
		126

Places admitted from.

City of Kingston	24	
County of Frontenac	12	
Other counties and places	90	
		126

Sex.

Male	66	
Female	60	
		126

Religious Denominations.

Protestant	2	
Roman Catholic	124	
		126

Nationalities.

Canadian	32	
English	8	
Irish	67	
Scotch	7	
Other countries	12	
		126

Receipts.

From the Province of Ontario	$1,898 75
From Municipalities	50 00
Income from property	45 67
Payment from inmates	1,024 28
Subscriptions and donations	2,229 78
Other sources	1,551 92
	$6,800 40

Expenditures.

Food of all kinds	$3,141 49
Clothing and furnishing	1,134 30
Salaries and wages	112 62
Fuel, light, and cleaning	847 17
Repairs, ordinary and extraordinary	649 03
Other expenses	808 71
	$6,693 32

Government Aid for 1888.

Allowance for 21,173 days, at 5 cents	$1,058 65
Supplementary aid, at 2 cents per day	423 46
Total	$1,482 11

Copies of the reports made by me to the Government upon this Refuge are annexed :—

"I made an inspection of the House of Providence, Kingston, on the 28th April. Owing to the lateness of the hour when I called, I found that a number of the inmates had retired for the night. The dormitories and other apartments appeared to be in excellent order. There were 24 men and 21 women in residence."

"I made an inspection of the House of Providence, Kingston, on the 4th September, and found there were 23 adult males and 20 adult females under charge. The Institution throughout presented its usual appearance of cleanliness; and the inmates appeared to be carefully looked after and comfortable in all their surroundings."

PROTESTANT HOME FOR THE AGED AND FRIENDLESS, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1886	6	
Admitted	2	
Total number of inmates		8
Discharged	1	
Died	1	
In residence, 30th September, 1887	6	
		8

Places admitted from.

City of London	8	
		8

Sex.

Male	6	
Female	2	
		8

Religious Denominations.

Protestant	8	
		8

Nationalities.

Canadian	2	
English	3	
Irish	1	
Other countries	2	
		8

Receipts.

From the Province of Ontario	$572 73
From inmates in part payment of board	544 50
Income from property	869 80
Subscriptions, donations, etc.	1,646 36
From other sources	.....
	$3,633 39

Expenditures.

Food of all kinds	$1,357 20
Salaries and wages	908 72
Other expenses	1,401 32
	$3,667 24

There is an Orphanage connected with this Home, and the accounts of both are included in these statements.

Government Aid for 1888.

Allowance for 2,355 days, at 5 cents	$117 75
Supplementary aid, at 2 cents per day	47 10
Total	$164 85

A copy of the report made to the Government upon this Institution by Dr. O'Reilly is annexed :—

"I beg to report, for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Home for the Aged and Friendless, London, on 28th October. The Institution was found to be in excellent condition, as usual. There were in residence 35 boys, 19 girls, 5 women, and 1 man, making a total population of 60 in the building. All the children of school age were in school at the time of my visit, and I had the pleasure of seeing them there, busily engaged in their work.

"I also visited the Infirmary, which is a detached building, and thoroughly well suited for its purpose. It is kept in perfect readiness for any emergency that may arise. I was happy to find it empty of patients."

ROMAN CATHOLIC HOUSE OF REFUGE, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	39	
Admitted	14	
Total number of inmates		63
Discharged	13	
Died	4	
In residence, 1st September, 1887	46	
		63

Places admitted from.

City of London	23	
County of Middlesex	2	
Other counties of Ontario	38	
		63

Sex.

Male	23	
Female	40	
		63

Religious Denominations.

Protestant	2	
Roman Catholic	61	
		63

Nationalities.

Canadian	16	
English	1	
Irish	44	
Other countries	2	
		63

The receipts and expenditures of this Charity are shewn in the report upon the Roman Catholic Orphans' Home, London.

Government Aid for 1888.

Allowance for 16.700 days, at 5 cents	$835 00
Supplementary aid, at 2 cents per day	334 00
Total	$1,169 00

Copies of the reports made to the Government upon this Charity by Dr. O'Reilly are annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Roman Catholic House of Refuge, London, on the 28th October, when there were 16 male and 29 female adults in residence, making a total of 45. The Institution was found to be in good order throughout.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I inspected the Roman Catholic House of Refuge, London, on the 14th July. There were on that day 13 males and 33 females in residence, all of whom I saw.

"I inspected the building also, and found everything very satisfactory."

HOME FOR AGED WOMEN, LONDON.

A petition was presented to the Government by the Women's Christian Association of London, asking that Government aid might be extended to the Home for Aged Women which had been opened by that Association in April, 1886. Dr. O'Reilly having reported favourably on the Home, an Order in Council was passed granting the aid asked for.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	5	
Admitted	12	
Total number of inmates	——	17
Discharged	5	
Died	...	
In residence, 30th September, 1887	12	
	——	17

Places admitted from,

City of London	13	
County of Middlesex	...	
Other counties of Ontario	4	
	——	17

Sex.

Male	...	
Female	17	
	——	17

Religions Denominations.

Protestant	15	
Roman Catholic	2	
	——	17

Nationalities.

Canadian	3	
English	10	
Irish	4	
	——	17

Receipts.

From the Government of Ontario	$ .....
" City of London	226 08
Income	.....
From payments made by inmates	217 68
Subscriptions, donations, etc.	438 71
	$882 47

Expenditures.

Food of all kinds	$374 90
Clothing and furnishings	60 81
Fuel, light, cleaning, etc.	201 76
Salaries and wages	204 65
Repairs, ordinary and extraordinary	57 46
Other expenses	298 42
	$1,198 00

Government Aid for 1888.

Allowance for 2,728 days, at 5 cents yer day	$136 40
Supplementary grant, at 2 cents	54 56
Total	$190 96

Copies of the reports made to the Government upon this Home by Dr. O'Reilly are annexed:—

"I beg to report for the information of His Honour the Lieutenant-Govern o in Council, that I made an inspection of the Aged Women's Home, London, on the 28th October. I found the house in some confusion on the day of my visit, as workmen were busily engaged in putting in a furnace for heating the building.

"The 14 inmates all seemed to be very comfortably cared for; and I have no doubt that when the internal arrangements are properly settled the institution will be a very efficient one.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I inspected the Aged Women's Home, London, on the 13th July.

"There were on that date 11 women in residence. I called the attention of the matron to the case of one inmate who should not be on the list and chargeable to the Government grant.

"This Home is rapidly improving, and bids fair to become a very comfortable and satisfactory institution.

"It does great credit to the ladies who have undertaken the management of it."

ST. PATRICK'S REFUGE, OTTAWA.

Full particulars of the operations of this Institution are shewn in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	108	
Admitted	160	
Total number of inmates		268
Discharged	151	
Died	11	
In residence, 30th September, 1887	106	
		268

Sex.

Male	165	
Female	103	
	——	268

Religious Denominations.

Protestant	1	
Roman Catholic	267	
	——	268

Nationalities.

Canadian	24	
English	113	
Irish	126	
Scotch	3	
Other countries	2	
	——	268

Places admitted from.

City of Ottawa	101	
County of Carleton and other counties	56	
Emigrants	111	
	——	268

The receipts and expenditure of this Charity are included with those of the Orphanage branch.

Government aid for 1888.

Allowance for 40,173 days, at 5 cents	$2,008 65
Supplementary aid, at 2 cents per day	803 46
Total	$2,812 11

Copies of the reports made by me to the Goverment upon this Refuge are annexed:

"I visited the St. Patrick's Refuge, Ottawa, on the 5th May, when there were 119 inmates, namely, 57 males and 62 females. Some of the more able-bodied inmates were engaged in house-cleaning, gardening, etc.: the majority of them, however, I found congregated in their respective quarters, and many of them confined to bed on account of failing strength.

"The premises and books were in good order and well kept.

"I made an inspection of the St. Patrick's Home, Ottawa, on the 8th September, and found there were 99 inmates under charge, 46 males and 53 females, distributed over the various sections and departments of the home. A number of these were employed in domestic work.

"Many of the inmates are very old and feeble, and require the close attention and care of those who are able to assist them.

"The female quarters had lately been painted, and this improvement gave the apartments on that side a very neat appearance."

ST. CHARLES' HOSPICE, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	76	
Admitted	26	
Total number of inmates		102
Discharged	18	
Died	10	
In residence, 30th September, 1887	74	
		102

Sex.

Male	37	
Female	65	
		102

Religious Denominations.

Protestant	1	
Roman Catholic	101	
		102

Nationalities.

Canadian	87	
English	2	
Other countries	13	
		102

Places admitted from.

City of Ottawa	72	
County of Carleton	8	
Other counties	22	
		102

Receipts.

From the Government of Ontario	$1,943	62
" County of Carleton		
Income	102	30
From payments made by inmates	1,243	80
Subscriptions, donations, etc.	1,678	05
	$4,967	77

Expenditures.

Food of all kinds	$1,380	35
Clothing and furnishings	158	43
Fuel, light, cleaning, etc.	269	02
Salaries and wages	174	53
Repairs, ordinary and extraordinary	334	60
Other expenses	2,230	27
	$4,547	20

Government Aid for 1888.

Allowance for 27,448 days, at 5 cents per day	$1,372 40
Supplementary grant, at 2 cents	548 96
Total	$1,921 36

Copies of the reports made by me to the Government upon this Charity are annexed:

"I made an inspection of the St. Charles' Hospital, Ottawa, on the 4th May.

"The inmates on that date numbered 78, namely 28 males and 50 females. No material change was noticeable in the condition of this Institution since my last visit. Cleanliness and order prevailed throughout, and the books are kept in accordance with the regulation.

"I made an inspection of the St. Charles' Hospital, Ottawa, on the 7th September, and saw the inmates in their respective wards. There were 30 males and 52 females, making a total population of 82. Very many of the inmates were very old and infirm, requiring the shelter and care of such a charity.

"The building throughout was in good order and well kept."

HOUSE OF PROVIDENCE, GUELPH.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	49	
Admitted	75	
Total number of inmates		124
Discharged	77	
Died	7	
In residence, 30th September, 1887	40	
		124

Places admitted from.

From the City of Guelph	42	
From the County of Wellington and other counties	56	
Foreigners, etc.	26	
		124

Sex.

Male	64	
Female	60	
		124

Religious Denominations.

Protestant	8	
Roman Catholic	116	
		124

Nationalities.

Canadian	20	
English	9	
Irish	81	
Other countries	14	
		124

Receipts.

Province of Ontario	$1092 77
Municipalities	36 00
From inmates in part payment for board	675 00
Income from property	300 00
From all other sources	992 66
	$3,096 43

Expenditures.

Food of all kinds	$1,166 67
Clothing and furnishings	531 07
Fuel, light and cleaning	285 00
Salaries and wages	110 00
Ordinary repairs	531 63
Other expenses	920 12
	$3,544 49

Government Aid for the year 1888.

Allowance for 15,795 days at 5 cents per day	$789 75
Supplementary aid at 2 cents	315 90
	$1,105 65

A copy of the report made to the Government upon this Refuge by Dr. O'Reilly is annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I made an inspection of the House of Providence, Guelph, on the 29th July. There were in residence on that date 21 males and 20 females ; total, 42. I saw all the inmates and inspected the building throughout, and found everything in a satisfactory condition."

PROTESTANT HOME, ST. CATHARINES (REFUGE BRANCH).

Full particulars of the operations of the Refuge Branch of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1886	2	
Admitted	0	
Total number of inmates	—	2
Discharged	0	
In residence, 30th September, 1887	2	
	—	2

Places admitted from.

City of St. Catharines	2	
	—	2

Sex.

Male	1	
Female	1	
	—	2

Religious Denominations.

Protestant	2	
	—	2

Nationalities.

Canadian	1	
English	1	
	—	2

The receipts and expenditures of this Branch of the Charity are included in the accounts of the Orphanage.

Government Aid for 1888.

Allowance for 760 days, at 5 cents per day	$36 50
Supplementary aid, at 2 cents	14 60
Total	$51 10

The inspection report upon this Branch is included with that upon the Orphanage.

THE HOME, ST. THOMAS.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, October 1st, 1886	12	
Admitted	12	
Total number of inmates	—	24
Discharged	6	
Died	4	
In residence, 30th September, 1887	14	
	—	24

Places admitted from.

City of St. Thomas	22	
County of Middlesex	2	
	—	24

Sex.

Male	12	
Female	12	
	—	24

Religious denominations.

Protestant	19	
Roman Catholic	5	
	—	24

Nationalities.

Canadian	3	
English	9	
Irish	6	
Other countries	6	
	—	24

Receipts.

From the Province of Ontario	$349 69
From the City of St. Thomas	651 19
From payments by inmates	78 50
From other sources	133 70
	$1,213 08

Expenditures.

Food of all kinds	$507 87
Clothing and furnishings	89 82
Fuel, light, cleaning, etc.	148 77
Salaries and wages	300 00
Other expenses	100 67
	$1,147 13

Government Aid for 1888.

Allowance for 4,282 days' stay, at 5 cents per day	$214 10
Supplementary aid, at 2 cents	85 64
Total	$299 74

Dr. O'Rielly instructed Mr. Hayes to visit this Home. A copy of the report made to Dr. O'Rielly is annexed :—

"I have the honour to report that, as instructed by you, I made an inspection of the Home, St. Thomas, on the 14th May. I find the building to be in a commendable state of cleanliness and order.

"The inmates numbered 11, of whom 7 were males and 4 females.

"Since the time of your last inspection, no change of importance has taken place in connection with the Home.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I made an inspection of the Home, St. Thomas, on the 28th October. There were in residence 7 men and 7 women on the day of my visit I found the Institution in very satisfactory order in all respects."

HOUSE OF PROVIDENCE, DUNDAS.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	88	
Admitted	33	
Total number of inmates		121
Discharged	26	
Died	5	
In residence, 30th September, 1887	90	
		121

Places admitted from.

City of Hamilton	75	
County of Wentworth and other counties	25	
Other places	21	
		121

Sex.

Male	48	
Female	73	
		121

Religious Denominations.

Protestant	7	
Roman Catholic	114	
		121

Nationalities.

Canadian	23	
English	3	
Irish	89	
Scotch	3	
Other countries	3	
		121

Receipts.

From the Province of Ontario	$2,304 26
From the City of Hamilton	200 00
From the County of Wentworth	300 00
From other municipalities	227 00
From inmates	800 00
Income	790 00
Subscriptions and donations of private individuals	780 00
Other sources	1,707 92
	$7,109 18

Expenditures.

Food of all kinds	$5,372 25
Clothing, furniture and furnishings	600 00
Fuel, light and cleaning	860 75
Other expenditures	1,866 39
	8,699 39

Government Aid for 1888.

Allowance for 33,580 days' stay, at 5 cents	$1,679 00
Supplementary aid, at 2 cents per day	671 60
Total	$2,350 60

A copy of the report made to the Government by Dr. O'Reilly upon this Institution is annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that the House of Providence, Dundas, was inspected by me on the 15th October.

"There were 36 adult males, 53 adult females, and 82 boys in the Institution on the day of my visit.

"I found nothing new to report in reference to this charity; it is always in excellent condition, and in thoroughly good shape throughout."

THE HOME FOR THE FRIENDLESS, CHATHAM.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1886	13	
Admitted	13	
Total number of inmates		26
Discharged	12	
Died	2	
In residence 30th September, 1887	12	
		26

Places admitted from.

Town of Chatham	14	
County of Kent	3	
Emigrants, foreigners, etc	9	
		26

Sex.

Male	17	
Female	9	
		26

Religious Denomination.

Protestant	24	
Roman Catholic	2	
		26

Nationalities.

Canadian	7	
English	9	
Irish	1	
Scotch	2	
Other countries	7	
		26

Receipts.

From the Province of Ontario	$ 377 79
From the Town of Chatham	2,000 00
From other sources	591 47
	$2,969 26

Expenditures.

Food of all kinds	543 69
Clothing and furnishing	154 62
Fuel, light, cleaning, etc	295 35
Salaries and wages	497 25
Other expenses	1,276 48
	$2,767 39

Government Aid for 1888.

Allowance for 4,925 days' stay, at 5 cents per day	$246 25
Supplementary aid, at 2 cents	98 50
Total	$344 75

Dr. O'Reilly instructed Mr. Hayes to make an inspection of this Home

A copy of his report made to Dr. O'Reilly, is annexed :—

"I beg to report that, as instructed by you, I visited the Home for the Friendless, Chatham, on the 13th May. The inmates were then 5 men, 6 women, and 1 child. The latter was at school. The other inmates were all seen except one man.

"The building was in good order, and the comfort of the inmates seemed to be properly looked after. The bath-rooms were being re-arranged."

THE WIDOWS' HOME, BRANTFORD.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1866	12	
Admitted	3	
Total number of inmates		15
Discharged	1	
Died	3	
In residence, 30th September, 1887	11	
		15

Places admitted from.

City of Brantford	14	
Province of Ontario	1	
		15

Sex.

Female	15	
		15

Religious Denominations.

Protestant	14	
Roman Catholic	1	
		15

Nationalities.

English	3	
Irish	6	
Other countries	6	
		15

Receipts.

From the Province of Ontario	$258 72
From inmates	68 00
From other sources	501 64
	$828 36

Expenditures.

Food of all kinds	$350 73
Clothing and furnishing	37 61
Fuel, light, cleaning, etc	104 26
Salaries and wages	165 13
Other expenses	727 03
	$1,384 76

Government Aid for 1888.

Allowance for 3,984 days' stay, at 5 cents per day	$199 20
Supplementary aid, at 2 cents	79 68
	$278 88

Copies of the reports made to the Government upon this Home, by Dr. O'Reilly, are annexed :—

"I made an inspection of the Widows' Home, Brantford, on the 10th Feb.

"The inmates numbered 11. The premises throughout were in good order.

"It would conduce very much te the comfort of these old people if a proper system of hot water heating were substituted for the stoves which are now in use.

"The latter are objectionable in many ways, and especially as a source of danger from fire.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Widows' Home, Brantford, on the 9th November. There were eleven women in the building on the day of my visit.

"This Home is steadily improving in all respects, and the old ladies who are under its care are made as comfortable as possible, with the one exception of the heating of the building. Wood stoves are used, and in addition to being irregular and uncertain in their action, they are unsafe to a greater or less degree. The old people who find a home here require a steady and generous heat, and this cannot be produced by wood stoves. Failing the introduction of a system of hot water heating, which is the best for such purposes, I would suggest the use of coal stoves."

THE HOME FOR THE FRIENDLESS, BELLEVILLE.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1886	10	
Admitted	11	
Total number of inmates		21
Discharged	11	
Died	0	
In residence, 30th September, 1887	10	
		21

Places admitted from.

From the City of Belleville	17	
From the County of Hasting and other counties	4	
		21

Sex.

Male	11	
Female	10	
		21

Religious Denominations.

Protestant	16	
Roman Catholic	5	
	——	21

Nationalities.

English	6	
Irish	10	
Scotch	0	
Canadian	5	
	——	21

Receipts.

From the Province of Ontario	$249 38
From the City of Belleville	50 00
From inmates	135 00
Subscriptions and donations	204 28
	$638 66

Expenditures.

Food of all kinds	$474 32
Clothing and furnishings	47 64
Fuel, light and cleaning	86 70
Salaries and wages	32 74
Other expenses	20 10
	$661 50

Government aid for 1888.

Allowance for 4,281 days, at 5 cents per day	$214 05
Supplementary aid, 2 cents	85 62
Total	$299 67

A copy of the Report made by me to the Government upon this Refuge is annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I made an inspection of the Home for the Friendless, Belleville, on the 20th July.

"On that occasion the inmates were six males and three females, all of whom were fit subjects for the care of such an Institution. They were old and infirm, and in some cases bedridden.

"I found the Home clean and tidy, and in perfect order. The books also were correctly and neatly kept."

THE PROTESTANT HOME, PETERBOROUGH.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movement of Inmates.

In residence, 1st October, 1886	15	
Admitted	9	
Total number of inmates	—	24
Discharged	9	
Died	3	
In residence, 30th September, 1887	12	
	—	24

Places admitted from.

From the Town of Peterborough	20	
From the County of Peterborough and other counties	4	
	—	24

Sex.

Male	7	
Female	17	
	—	24

Religious Denominations.

Protestant	24	
	—	24

Nationalities.

English	8	
Irish	2	
Scotch	2	
Canadian	12	
	—	24

Receipts.

From the Province of Ontario	$128 52
From municipalities for board of inmates	297 20
From inmates	38 00
Subscriptions and donations	850 85
	$1,314 57

Expenditures.

Food of all kinds	$610 54
Clothing and furnishings	103 55
Fuel, light and cleaning	138 42
Salaries and wages	136 50
Other expenses	122 38
	$1,111 39

Government Aid for 1888.

Allowance for 4,774 days, at 5 cents per day - -	$238 70
Supplementary aid, at 2 cents - - - - -	95 48
Total - - - - - - - - -	$334 18

Copies of the reports made by me to the Government upon this Home are annexed :—

"I made an inspection of the Protestant Home, Peterborough, on the 18th May. There were 13 adult inmates being cared for on that date, viz.: 7 males and 6 females. There were also 4 youths under twelve years.

"The apartments were thoroughly clean and well kept, and the inmates were evidently receiving proper care and attention.

"I have the honour to report that, as instructed by you, I paid a visit to the Protestant Home, Peterborough, on the 31st August, 1887, on which occasion there were 10 old people in residence, 5 men and 5 women, together with 4 boys under 12 years of age. I saw all the adults, who, although very old and some of them quite helpless, appeared to be as happy and comfortable as it is possible to be in such a state.

"The building, an old one, and not suited for the purposes for which it is used, is clean and nicely kept throughout.

"The books were properly entered up to date."

ORPHAN ASYLUMS.

Two Institutions under this head have been transferred from the list of Magdalen Asylums, which are treated upon further in this report, viz., the Home for the Friendless, Hamilton, and the Women's Refuge and Infant's Home, London.

The following Table exhibits the admissions to, discharges from, and deaths in those Orphanages during the year:—

NAMES OF ORPHANAGES.	Location.	Number in residence 1st October, 1886.	Number admitted during the year ending 30th September, 1887.	Total number maintained during the year.	Number discharged during the year.	Number of deaths during the year.	Number remaining in residence on 30th September, 1887.
Roman Catholic Orphan Asylum	Toronto	280	155	435	152	15	268
Orphans' Home	do	168	87	255	77	.....	178
Girls' Home	do	81	55	136	50	.....	86
Boys' Home	do	109	55	164	69	.....	95
Newsboys' Lodgings	do	23	135	158	145	1	12
Infants' Home	do	45	138	183	78	34	71
St. Nicholas' Home	do	53	119	172	127	.....	45
Hospital for Sick Children	do	41	99	140	87	6	47
St. Mary's Orphan Asylum	Hamilton	170	66	236	72	8	156
Protestant Orphan Asylum	do	24	17	41	7	.....	34
Boys' Home	do	96	38	134	62	.....	72
Girls' Home	do	77	31	108	49	2	57
Home for Friendless	do	18	55	73	41	3	29
Orphans' Home	Kingston	56	20	76	19	.....	57
House of Providence Orphanage	do	15	35	50	36	.....	14
Hotel Dieu Orphanage	do	37	271	308	267	1	40
Orphans' Home	Ottawa	32	70	102	65	4	33
St. Patrick's Orphan Asylum	do	56	55	111	51	1	59
St. Joseph's Orphan Asylum	do	96	110	206	92	.....	114
Roman Catholic Orphans' Home	London	94	55	149	56	.....	93
Protestant Orphans' Home	do	48	30	78	27	.....	51
Women's Refuge and Infants' Home	do	12	55	67	49	7	11
Protestant Home (Orphanage Branch)	St. Catharines.	30	5	35	10	.....	25
Orphan Asylum	St. Agatha	38	10	58	10	.....	38
The Home (Orphanage Branch)	St. Thomas	3	.....	3	3	.....	.....
Orphans' Home	Fort William	36	23	59	12	..	47
Totals		1,738	1,789	3,527	1,713	82	1,732
Totals 1886		1,640	1,599	3,239	1,395	127	1,717

It will be seen that there was an increase of 288 in the total number cared for in 1887, as compared with 1886. The number of discharges, increased by 318, the population at the end of the year was 2 less than in the beginning. The number of deaths fell from 127 in 1886 to 82 in 1887. Forty per cent of these deaths occurred in the Infants' Home in Toronto.

The statistics relating to the sex, religious denominations, and nationalities of the inmates are given in the following summary:—

Sex.

Male	1,898	
Female	1,629	
		3,527

Religious Denominations.

Protestant	1,755	
Roman Catholics	1,772	
		3,527

Nationalities.

Canadian	2,456	
English	396	
Irish	462	
Scoth	87	
United States	60	
Other countries and unknown	66	
		3,527

Previous Residence.

Received from cities in which Orphanages are located	2,545	
Received from counties in which Orphanages are located	311	
Received from other counties in the Province	511	
Emigrants and foreigners	169	
		3,527

The next table shews the aggregate stay of the inmates of the Orphanages, the fixed allowances in respect thereof under the Charity Aid Act, the receipts of the Institutions on maintenance account, the amount of the supplementary allowance, together with the total amount which each Institution has become entitled toas the grant for the year 1888.

A gratifying feature in this table is the increase in the amount received by these various charities from the general public. The collective stay of the inmates was 33,908 days more in 1887 than in 1886, and the money earned has increased from $14,902.59 to $15,928.82.

The next table shews the cost of maintaining these Orphanages, after which will be found the separate reports upon each of them :—

NAMES OF ORPHANAGES.	LOCATION.	Aggregate stay of inmates.	Total expenditure on maintenance account for the year ending 30th of September, 1886.	Average cost per inmate per day.
			$ c.	Cents.
Roman Catholic Orphan Asylum	Toronto	103885	9837 85	9.47
Orphans' Home and Female Aid Society	do	62540	11663 39	18.64
Girls' Home	do	30559	5328 84	17.43
Boys' Home	do	39312	6563 18	16.70
Newsboys' Lodgings	do	8052	3236 94	40.20
Infants' Home and Infirmary	do	25589	6793 39	26.93
St. Nicholas' Home	do	19774	5118 81	25.88
Hospital for Sick Children	do	13956	8896 73	63.74
St. Mary's Orphan Asylum	Hamilton	61464	6824 40	11.10
Orphan Asylum	do	9647	*4693 63	
Boys' Home	do	31069	4685 30	15.00
Girls' Home	do	25992	3061 93	11.79
Home for Friendless	do	11555	2176 75	18.83
Orphans' Home	Kingston	20364	2815 60	13.83
House of Providence Orphan Asylum	do	6973	†	
Hotel Dieu	do	13633	†	
Orphans' Home	Ottawa	14748	1145 40	8.40
St. Patrick's Orphan Asylum	do	21755	4231 04	28.70
St. Joseph's Orphan Asylum	do	42726	11639 85	53.50
Roman Catholic Orphans' Home	London	32665	5152 18	12.15
Protestant Orphans' Home	do	17483	†	
Women's Refuge and Infants' Home	do	6124	†	
Protestant Home (Orphanage Branch)	St. Catharines	9669	1868 45	30.51
Orphan Asylum	St. Agatha	14319	2011 17	20.80
The Home (Orphanage Branch)	St. Thomas	105	1076 47	7.51
Orphan Asylum	Fort William	13771	†	
			2119 33	17.56
Totals		657709	111240 63	

* Includes expenditure of Refuge Branch. † Included with Refuge

NAMES OF ORPHANAGES.	Location.	Aggregate stay of Inmates.	Fixed allowances at one and a half cent per day.	Amount received from all sources other than Government.	Supplementarg allowance of one quarter such receipts, provided amount does not exceed the half cent. allowance.	Supplementary allowance of half cent per day.	Total Government grant for the year 1888.
			$ c.	$ c.	$ c.	$ c.	$ c.
Roman Catholic Orphan Asylum	Toronto	103835	1557 53	7772 53		519 17	2076 70
Orphans' Home and Female Aid Society	do	62540	938 10	10442 79		312 70	1250 80
Girls' Home	do	30559	458 38	4710 97		152 80	611 18
Boys' Home	do	39312	589 68	5924 16		196 56	786 24
Newsboys' Lodgings	do	8052	120 78	2933 32		40 26	161 04
Infants' Home and Infirmary	do	25589		5355 05			‡1327 29
St. Nicholas' Home	do	19774	296 61	4712 85		98 87	395 48
Hospital for Sick Children	do	9843		6973 22			1477 05
do do Convalescent Branch	do	4113					287 91
St. Mary's Orphan Asylum	Hamilton	61464	921 96	5603 25		307 32	1229 28
Orphan Asylum	do	9647	144 71	3872 80		48 23	192 94
Boys' Home	do	31099	466 48	3748 35		155 50	621 98
Girls' Home	do	25992	389 88	2474 63		129 96	519 84
Home for Friendless	do	11555		1665 81			561 02
Orphans' Home	Kingston	20364	305 46	2838 19		101 82	407 28
House of Providence Orphan Asylum	do	6973	104 59			34 87	139 46
Hotel Dieu	do	13633	204 49	680 00		68 17	273 66
Orphans' Home	Ottawa	14748	221 22	3584 12		73 74	294 96
St. Patrick's Orphan Asylum	do	21755	326 33	8042 48		108 77	435 10
St. Joseph's Orphan Asylum	do	42726	640 89	4408 60		213 63	854 52
Roman Catholic Orphans' Home	London	32665	489 97			163 33	653 30
Protestant Orphans' Home	do	17483	262 24			87 42	349 66
Women's Refuge and Infants' Home	do	6124		1219 70			265 85
Protestant Home (Orphanage Branch)	St. Catharines	9669	145 03	1743 83		48 35	193 38
Orphan Asylum	St. Agatha	14319	214 78	806 34		71 60	286 38
The Home (Orphanage Branch)	St. Thomas	105	1 57			53	2 10
Orphan Asylum	Fort William	13771	206 56	1485 43		68 86	275 42
Totals		657709	9007 24	90998 42		3002 46	15928 82
" 1886		623801	8822 76	80521 61		2941 02	14902 59

* Includes receipts of Refuge Branch † Included with Refuge Branch.
‡ This sum includes 10 cents per day for the mother nurses, and a grant of $200 for Infirmary work.

SEPARATE REPORTS.

ROMAN CATHOLIC ORPHAN ASYLUM, TORONTO.

The following summaries shew the operations of this Orphanage during the year :—

Movements of Inmates.

In residence, 1st October, 1886	280	
Admitted	155	
Total number of inmates		435
Discharged	152	
Died	15	
In residence, 30th September, 1887	268	
		435

Sex.

Male	242	
Female	193	
		435

Religious Denominations.

Protestant	12	
Roman Catholic	423	
		435

Nationalities.

Canadian	351	
English	26	
Irish	47	
United States	.....	
Other countries	11	
		435

Places admitted from.

City of Toronto	313	
County of York	17	
Other parts of Ontario	93	
Other countries	12	
		435

The receipts of the Institution during the year, including the Government grant of $2,085.54, were $9,858.07, and the expenditures were $9,837.85.

The collective stay of the inmates was 103,835 days, entitling the Institution to receive the sum of $2,076.70 as Government aid for the year 1888.

Copies of the reports made by me to the Government upon this Orphanage are annexed :—

"I visited the Roman Catholic Orphan Asylum, at Sunnyside, on the 18th February.

"On that date there were 138 boys under charge, 12 of whom were temporarily absent, however, at the House of Providence in the city, they having been detailed to attend to duties at that Institution.

"There are also 123 female children being cared for in the House of Providence, which makes a total of 261.

"All the children in residence at the time of my visit were in good health. Ninety-nine boys were in the school rooms and reported to be making satisfactory progress.

"Since the new building at Sunnyside has been occupied, instruction in the branches has been regularly carried on, and a carpenter and shoemaker have been employed to teach the boys in those branches of handicraft.

"These duties, together with the domestic work which they also take part in, keep them fully occupied.

"Attached to the Institution are nine acres of ground, the most of which can be cultivated, and the intention is to employ the boys in tilling the arable portions during the summer, when their other occupations will admit of their doing garden work.

"I made an inspection of the Roman Catholic Orphanage, Sunnyside, on the 26th August.

"There were 158 boys under charge in the Institution on the day of my visit.

"They all appeared to be in excellent health. The premises were in good order, dormitories clean, and grounds and garden were cultivated. The boys are made to do the garden work, and are also taught domestic work and the rudiments of an English education."

ORPHANS' HOME, TORONTO.

The following summaries shew the operations of this Institution during the past year:—

Movements of Inmates.

In residence, 1st October, 1886	168	
Admitted	87	
Total number of inmates		255
Discharged	77	
Died	.....	
In residence, 30th September, 1887	178	
		255

Sex.

Male	145	
Female	110	
		255

Religious Denominations.

Protestant	252	
Roman Catholic	3	
		255

Nationalities.

Canadian	212	
English	37	
Irish	3	
Other counties	3	
		255

Places admitted from.

City of Toronto	144	
County of York	94	
Other parts of Ontario	15	
Other countries	2	
	——	255

The receipts of this Institution during the year, including the Government grant of $1,165.48, were $1,168.27, and the expenditures were $11,663.39.

The collective stay of the inmates was 62,540 days, entitling the Institution to receive the sum of $1,250.80 as Government aid for the year 1888.

Copies of the reports made by me to the Government upon this Home are annexed :—

"I made an inspection of the Orphans' Home, Toronto, on the 19th January, on which day there were 171 children in residence, 95 males and 76 females They were in excellent health; no case of sickness existed. At the time of my visit they were enjoying themselves in out-door exercises and amusements, it being their play-hour. The various departments of the Home were found to be scrupulously clean, and the books properly kept.

"I made an inspection of the Orphans' Home, Toronto, on the 23rd September.

"There were 105 boys and 77 girls in charge on the day of my visit, all of whom were in good health, and the Institution throughout was clean and in good order."

GIRLS' HOME, TORONTO.

The following summaries shew the operations of this Home during the year :—

Movements of Inmates.

In residence, 1st October, 1886	81	
Admitted	55	
Total number of inmates	——	136
Discharged	50	
Died	0	
In residence, 30th September, 1887	86	
	——	136

Sex.

Male	8	
Female	128	
	——	136

Religious Denominations.

Protestant	134	
Roman Catholic	2	
	——	136

Nationalities.

Canadian	116	
English	14	
Irish	2	
United States	1	
Other countries	3	
		136

Places admitted from.

City of Toronto	126	
Other parts of Ontario	10	
		136

The receipts during the year, including the Government grant of $608.94, were $5,319.91, and the expenditures incurred were $5,328.84.

The collective stay of the inmates was 30,559 days, entitling the Institution to receive the sum of $611.18 as Government aid for the year 1888.

Copies of the reports made to the Government by me upon this Home are annexed :—

"I made an inspection of the Girls' Home, Toronto, on the 25th January, when there were 87 youths under charge, namely, 8 boys and 79 girls.

"The health of the children was good ; there was not a case of sickness amongst them, nor had there been for some time past. The skin disease which, for a length of time, had given trouble to the staff in charge, has nearly disappeared, and those who are still affected have been moved to another building to ensure their complete isolation. By this means the ailment will no doubt be completely eradicated ere long. I found every department of the Home in excellent order and thoroughly clean, and there was every evidence that the children were being well cared for.

"Owing to the absence of the secretary for some time previous to my visit, the register had not been written up for a number of days. I was assured, however, that this would be attended to immediately on her return.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Girls' Home, Toronto, on the 25th August.

"There were then 77 girls under charge, and I was glad to find their general health much improved. The skin disease which has been so troublesome for years appears to have given way to the continued care and treatment which the children have received, and there are now comparatively few suffering from it. A separate home, which afforded perfect isolation, had been provided for those suffering from the ailment, and all necessary measures appeared to be taken for their relief.

"I found the Institution clean and tidily kept. The books of record also were properly entered up."

BOYS' HOME, TORONTO.

The following summaries shew the operations of the Home during the year:—

Movements of Inmates.

In residence, 1st October 1886	109	
Admitted	55	
Total number of inmates		164
Discharged	69	
In residence, 30th September, 1887	95	
		164

Religious Denominations.

Protestant	162	
Roman Catholic	2	
		164

Nationalities.

Canadian	139	
English	14	
Irish	3	
Other countries	8	
		164

Places admitted from.

City of Toronto	141	
County of York	3	
Other parts of Ontario	13	
Other countries	7	
		164

The receipts of the Home during the year, including the Government grant of $682.74, amounted to $6,606.90, and the expenditures were $6,553.18.

The collective stay of the inmates was equal to 39,312 days, entitling the Institution to receive the sum of $786.24 as Government aid for the year 1888.

Copies of the reports made to the Government by me upon this Home are annexed:—

"I made an inspection of the Boys' Home, Toronto, on the 25th January, and saw all the boys then under charge,—106 in number. They were all in excellent health, and bright and happy. They looked clean and were well-clad.

"The building throughout was in its usual condition of excellent order and cleanliness. The boys were reported to be making good progress in school.

"The books were well and neatly kept."

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Boys' Home, Toronto, on the 25th August.

"There were on that date 112 boys under the care of the Institution, all of whom, with one exception, were in good health. The one reported to be sick was being treated in the Sick Childrens' Hospital for a hereditary ailment. I found the Home clean and tidy throughout, while the appearance of the boys showed that proper care and attention were being bestowed upon them.

"As usual the boys were being kept fully employed in whitewashing, carpet making, and doing domestic work. Fifteen of them have been apprenticed during the past year according to the rules of the Institution, and there are now 91 in all undergoing apprenticeship in the surrounding country, the boys still being under the supervision of the Home although apprenticed up to 18 years of age, and I am informed that their record is excellent. The system of depositing the money earned by the boys from year to year during such term, and handing it over to them with accrued interest at the expiry of their apprenticeship, seems to prove an incentive to the forming of frugal and industrious habits, and makes them, in a large measure, independent of assistance when they become their own masters."

NEWSBOYS' LODGINGS, TORONTO.

The following summaries shew the operations of this Institution during the year:—

Movements of Inmates.

In residence, 1st October, 1886	23	
Admitted	135	
Total number of inmates	——	158
Discharged	145	
Deaths	1	
In residence, 30th September, 1887	12	
	——	158

Religious Denominations.

Protestant	138	
Roman Catholic	20	
	——	158

Nationalities.

Canadian	115	
English	25	
Irish	7	
Other countries	11	
	——	158

Places admitted from.

City of Toronto	130	
County of York	11	
Other counties	9	
Other countries	8	
	——	158

The income during the year, including the Government grant of $207.28, was $3,140.60, and the expenditures were $3,236.94.

The collective stay of the boys was 8,052 days, entitling the Institution to receive the sum of $161.04 as Government aid for the year 1888.

Copies of the reports made to the Government by me upon this Institution are annexed:—

"I visited the Newsboys' Lodging, Toronto, on the 26th January.

"The register contained the names of 25 youths on that date. A number of them were assembled for their mid-day meal, and a substantial repast was provided.

"Some improvement in the condition of the premises was noticeable since the date of my inspection. Some of the walls had been colour-washed and kalsomined, and the floors were cleaner. There is still ample room, however, for further improvement in this direction, and only a thorough overhauling would put the Institution in fair order. The basement throughout, and especially the wash-room, is in a dilapidated state."

"I made a second inspection of this Institution on 2nd September. The names of 21 were recorded as being lodged at the time of my visit.

"From the records I note that this is a smaller number than usual. The falling off, however, is only of recent date, and the probability is that fresh entrants will soon bring the number up to the full average.

"I found that the ceilings had been kalsomined since my last visit, and that the outside walls had been painted, otherwise no internal improvements had been made.

"The bath and wash-room is in a sadly dilapidated condition, and the fittings nearly worn out. I was informed that cases of illness had appeared during the spring and summer, and it is quite possible that some of it may have been chargeable to the plumbing and condition of the basement generally. The whole internal of the institution requires overhauling and renewing, and it is to be hoped that the management will see their way to accomplish this at an early date."

THE INFANTS' HOME, TORONTO.

The following summaries shew the operations of this Home during the past year:—

Movements of Inmates.

	Infants.	Mothers.	Total.
In residence, 1st October, 1886	27	18	45
Admitted	95	43	138
Total number of inmates	122	61	183
Discharged	41	37	78
Died	34	..	34
In residence, 30th September, 1887	47	24	71
	122	61	183

The statistical information regarding the infants is as follows, viz:—

Sex.

Male	56	
Female	126	
		183

Religious Denominations.

Protestant	162	
Roman Catholic	21	
		183

Nationalities.

Canadian	159	
English	16	
Irish	8	
	——	183

Places admitted from.

City of Toronto	178	
Province of Ontario	4	
Other countries	1	
	——	183

The receipts of the Home during the year were $6,581.29, and the expenditures were $6,793.39.

The collective stay of the children equalled 17,003 days. The Home, therefore, will be entitled in respect of them to $340.06.

The collective stay of those mother nurses, for whom 10 cents a day is allowed, was 6,207 days. The Home, in respect to these, will be entitled to $620.70.

The collective days' stay of those mother nurses, for whom 7 cents per day is allowed, was 2,379 days, for which they are entitled to receive $206.53.

The total grant, therefore, to the Home for 1888, including the grant of $200 for the Infirmary work, will amount to $1,327.29.

Copies of the reports made to the Government by me upon this Home are annexed :—

"I made an inspection of the Infant's Home, Toronto, on the 18th January, and saw all the inmates, namely, 48 children, and 27 mother nurses.

"Since the disappearance of the epidemic of measles, referred to in my last report, the Institution has been thoroughly disinfected throughout and every care taken to prevent the recurrence of such an epidemic, and the work of the Institution is again being carried on very satisfactorily. During the past year 33 infants have been admitted to the Infirmary Branch of the Home, and 12 have been admitted this year. Up to the date of my visit a proposition to build an isolated infirmary is now being freely discussed, and the management will, no doubt, during the coming season provide such accommodation in this way as will greatly mitigate the difficulties experienced during the past year.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Infants' Home, Toronto, on the 23rd August.

"I saw all the inmates then in residence, namely 25 mother nurses, and 53 infants. The admissions during the current official year up to the date of my visit were 112 infants and 57 mother nurses. During the same period the deaths of 28 infants were recorded, none of which, however, were due to contagious or epidemic diseases, but to hereditary ailments.

"I found the Home and Infirmary in excellent order, and the books properly entered up. The erection of a new Infirmary in the rear of the main building, which had made considerable progress, has been delayed in consequence of labour difficulties, but it is hoped that with the early removal of these difficulties the work will be speedily carried to completion."

ST. NICHOLAS HOME, TORONTO.

The following summaries shew the operations of the Home during the official year :—

Movements of Inmates.

In residence, 1st October, 1886	53	
Admitted	119	
Total number of inmates		172
Discharged	127	
Died	...	
In residence, 30th September, 1887	45	
		172

Sex.

Male	172	
		172

Religious Denominations.

Protestant	17	
Roman Catholic	155	
		172

Nationalities.

Canadian	101	
English	31	
Irish	33	
Other countries	7	
		172

Places admitted from.

City of Toronto	54	
Other places	118	
		172

The revenue of the Home during the year, including the Government grant of $318.06, was $5,030.85, and the expenditure was $5,118.81.

The collective stay of the boys was 19,774 days, entitling the Institution to receive the sum of $395.48 as Government aid for 1888.

Copies of the reports made to the Government by me upon this Home are annexed :—

"I made an inspection of the St. Nicholas Home, Toronto, on the 1st April.

"On that day there were the names of fifty-three youths registered as lodgers in the house. Nearly all of these were absent at their various employments at the time of my visit. I found the dormitories in good order, clean and neat. The books also were properly kept."

"I made an inspection of the St. Nicholas Home, Toronto, on the 2nd September.

"The record shews the names of 37 young men and youths who were being boarded and lodged there. I found the home in good order, dormitories clean, and books neatly kept.

'The youths were all out at their various places of employment."

HOSPITAL FOR SICK CHILDREN.

The following summaries shew the operations of this Institution during the year:—

Movements of Inmates.

Under treatment, 1st October, 1886	41	
Admitted	99	
Total number of inmates	——	140
Discharged	87	
Died	6	
Under treatment, 30th September, 1887	47	
	——	140

Sex.

Male	60	
Female	80	
	——	140

Religious Denominations.

Protestant	131	
Roman Catholic	9	
	——	140

Nationalities.

Canadian	138	
English	1	
Irish	...	
Other countries	1	
	——	140

Places admitted from.

City of Toronto	98	
County of York	39	
Other counties and countries	3	
	——	140

In the Convalescent Home on the Island, 76 children were admitted during the summer season, but the majority of these were patients transferred from the Hospital.

The income of the Hospital during the year amounted to $8,886.79, and the expenditures to $8,896.73.

The collective stay of the inmates, including those in the Island Home, requiring active medical or surgical treatment, was equal to 13,956 days, entitling the institution to aid to the extent of $1,477.05.

The collective stay of the children admitted to the Island Home as convalescents and from orphanages, etc., for change, was 4,113 days. The Hospital will be entitled in respect of them to an allowance of seven cents per day, equal to $287.91, making a total of $1,766.96 as Government aid for the year 1888.

Copies of the reports made by me to the Government upon this Hospital are annexed:—

"I made an inspection of the Sick Children's Hospital, Toronto, on the 1st April, and saw all the inmates, 11 males and 22 females, then under treatment.

"This charity is occupying temporary premises on the corner of Jarvis and

Lombard streets, while provision is being made for more suitable and better accommodation. The present building has been occupied since the removal of the children from the Island Home in October. I was shewn the plans of the new hospital, a site for which is being selected. When erected the new building will be a credit to the management, both in its internal arrangement and outward appearance. It will accommodate over 100, and the entire cost will be from $70,000 to $80,000. The location of the present building is not desirable for many reasons, and the erection of a new building in a more suitable locality will undoubtedly be a great advantage to the little sufferers receiving treatment."

"I visited this Institution on the 2nd September, temporarily situated corner of Lombard and Jarvis streets, and saw the 15 patients then under treatment.

"I found ample evidence of good care and treatment being extended to the little ones in charge.

"All the apartments were scrupulously clean and tidy.

"On the following day I visited the Lakeside Home, which in the summer time is used as the principal residence. Forty-six patients were under treatment in this section of the Hospital. The premises were clean and tidy.

"No sufficient drainage, however, can be effected from the building as it is so near the lake level, and this is a draw back which will not be easily overcome. The sewage should be carried a much greater distance from the building."

ST. MARY'S ORPHAN ASYLUM, HAMILTON.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1886	170	
Admitted	66	
Total number of inmates		236
Discharged	72	
Died	8	
In residence, 30th September, 1887	156	
		236

Sex.

Male	114	
Female	122	
		236

Religious Denominations.

Roman Catholic	229	
Protestant	7	
		236

Nationalities.

Canadian	234	
English	...	
Irish	...	
Other countries	2	
		236

Places admitted from.

City of Hamilton	165	
County of Wentworth	27	
Other counties and countries	44	
	——	236

Including the Government grant of $1,251.10, the revenue of the Asylum during the year amounted to $6,854.35, and the expenditure to $6,824.40.

The collective stay of the inmates was 61,464 days, entitling the Asylum to receive a sum of $1,229.28, as Government aid for 1888.

A copy of the report made to the Government upon this Orphanage by Dr. O'Reilly is annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I inspected the St. Mary's Orphan Asylum, Hamilton, on the 14th October.

"There were 70 children being cared for, all of whom I saw. Everything in this Institution was found to be in its usual highly satisfactory condition.

PROTESTANT ORPHAN ASYLUM, HAMILTON.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1886	24	
Admitted	17	
Total number of inmates	——	41
Discharged	7	
In residence, 30th September, 1887	34	
	——	41

Sex.

Male	33	
Female	8	
	——	41

Religious Denominations.

Protestant	41	
	——	41

Nationalities.

Canadian	37	
English	4	
	——	41

Place admitted from.

City of Hamilton	41	
	——	41

The receipts of the Asylum during the year were $4,700.52, and the expenditures were $4,693.63. The receipts and expenditures of the Aged Women's Refuge are included in these amounts.

The collective stay of the children was 9,647 days, entitling the Institution to receive the sum of $192.94 as Government aid for 1888.

A copy of the report made by Dr. O'Reilly upon this Orphanage is annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Orphan Asylum, Hamilton, on the 14th October.

"There were then 35 children in the Institution. On visiting the School-room while the school was in session I found the temperature very low, and upon enquiry I ascertained that the furnace was out of order, and although it had been in that condition all summer it had not, at this date, been repaired. The children were actually suffering from cold, I ordered the school to be dismissed, and not to be reassembled until proper arrangements were made for the heating of the room. The only explanation given for the delay in repairing the furnace was procrastination. The Institution was otherwise in good order.

BOYS' HOME, HAMILTON.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1886	96	
Admitted	38	
Total number of inmates		134
Discharged	62	
Died	...	
In residence, 30 September, 1887	72	
		134

Religious Denominations.

Protestant	94	
Roman Catholic	1	
Other religions	39	
		134

Places admitted from.

City of Hamilton	134	
		134

Nationalities.

Canadian	87	
English	26	
Irish	10	
Scotch	8	
Other countries	3	
		134

The receipts of the Home during the year were $4,439.67, and the expenditures were $4,685.30.

The collective stay of the inmates was 31,099 days, entitling the House to receive the sum of $621.98 as Government aid for 1888.

Copies of the reports made by Dr. O'Rielly to the Government upon this Home are annexed :—

"I visited the Boys' Home, Hamilton, on the 8th April, when there were 88 boys in residence.

"An epidemic of measles had broken out on the day of my visit. There were thirty-four cases reported, some of them serious, but only one death had occurred.

"The Home was in its usual condition of good order and cleanliness.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Boys' Home, Hamilton, on the 14th October, when there were 72 boys under its roof, all of whom I saw. Although it was a cold day the furnace had not been lighted and the windows were all closed, so that there was no ventilation, the air throughout the building being very foul in consequence. It seems that some people think it necessary to freeze the inmates of these institutions a few days before they will light the furnaces, while there is no sanitary rule more clearly defined than that which requires the proper heating of buildings just as soon as it becomes necessary to close the windows to exclude the outside air.

"In all other respects this institution was found to be satisfactory.

"The matron was not at home on the day of my visit."

GIRLS' HOME, HAMILTON.

The following summaries shew operations of this Home during the year :—

Movement of Inmates.

In residence, 1st October, 1886	77	
Admitted	31	
Total number of inmates		108
Discharged	49	
Deaths	2	
In residence, 30th September, 1887	57	
		108

Sex.

Male	1	
Female	107	
		108

Religious Denominations.

Protestant	108	
		108

Nationalities.

Canadian	77	
English	21	
Irish	4	
Other countries	6	
	——	108

Places admitted from.

City of Hamilton	104	
Other parts of the Province of Ontario	4	
	——	108

The revenue of the Home during the year was $3,012.01, and the expenditure was $3,061.93.

The collective stay of the children was 25,992 days, entitling the Home to receive a sum of $519.84 as Government aid for 1888.

A copy of the report made to the Government by Dr. O'Rielly upon this Home is annexed:—

"I beg to report for the information of His Honor the Lieutenant-Governor in Council that I made an inspection of the Girls' Home, Hamilton, on the 14th October. There were on the day of my visit 56 girls in the Institution.

The premises were found to be clean, orderly and in good shape throughout."

———

HOME FOR THE FRIENDLESS, HAMILTON.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates

In residence, 1st October, 1886	18	
Admitted	55	
Total number of inmates	——	73
Discharged	41	
Died	3	
In residence, 30th September, 1887	29	
	——	73

Sex.

Male (infants)	26	
Female	47	
	——	73

Religious Denominations.

Protestant	68	
Roman Catholic	5	
	——	73

Nationalities.

Canadian	53	
English	15	
Irish	3	
Scotch	2	
	——	73

Places admitted from.

City of Hamilton	65	
Other places and counties	8	
	——	73

The revenue of the Home, exclusive of the Government grant of $586.44, was $1,665.81, and the expenditure $2,176.75.

The collective stay of the children equalled 6,771 days. The Home, therefore, will be entitled in respect of them to $135.42.

The collective stay of those mother nurses for whom 10 cents a day is allowed was 3,024 days. The Home in respect of these will be entitled to $302.40.

The collective days' stay of those mother nurses for whom 7 cents per day is allowed was 1,760 days, for which they are entitled to receive $123.20.

The total grant to the Home, therefore, for 1888, will amount to $561.02.

Copies of the reports made by Dr. O'Reilly to the Government upon this Home are annexed :—

"I made an inspection of the Home for the Friendless, Hamilton, on the 9th April. On that date the inmates numbered 27, namely, 8 women and 19 children.

"With a view to establishing an infirmary for infants in connection with this charity, an effort is being made to raise the necessary funds for the erection of a new Home.

"It is now a rule of the Institution that no child will be taken unless the mother undertakes to remain and nurse it. Exceptions have to be made, of course, where this is found to be impossible.

"The building was in good order throughout.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I made an inspection of the Home for the Friendless, Hamilton, on the 14th October. There were then in residence seven adults, all mother nurses, and twenty children. Everything about the Institution was found to be satisfactory.

ORPHAN'S HOME, KINGSTON.

The following summaries shew the operations of the Institution during the year :—

Movements of Inmates.

In residence, 1st October, 1886	56	
Admitted	20	
Total number of inmates	——	76

Discharged	19	
In residence, 30th September	57	
	——	76

Sex.

Male	39	
Female	37	
	——	76

Religious Denominations.

Protestant	76	
	——	76

Nationalities

Canadian	60	
English	15	
Other countries	1	
	——	76

Places admitted from.

City of Kingston	76	
	——	76

The revenue of the Home during the year was $3,197.27, including the Government grant of $351.08, and the expenditure was $2,815.60.

The collective stay of the children was 20,364 days, entitling the Institution to receive a sum of $407.28, as Government aid for 1888.

Copies of the reports made to the Government by me upon this Home are annexed :—

"I made my first visit to the Orphan's Home, Kingston, for the current year on the 28th April. There were fifty-five orphans under charge, namely thirty-two boys and twenty-three girls, on the day of my visit; with one exception they were all assembled in the class room at the time, and their general appearance indicated excellent care and supervision.

"I found the house in good order throughout, and evidence of every attention being paid to the comfort and welfare of the inmates. The books were properly kept.

"I made an inspection of the Orphans' Home, Kingston, on the 5th September, and saw the children then in charge.

"With one exception they were all in good health, and had the appearance of being well cared for, and all necessary attention bestowed on them.

"The Home in all its appointments was in a good state of order, clean and tidy, and the books properly kept.

———

ORPHANAGE OF THE HOUSE OF PROVIDENCE, KINGSTON.

The following summaries shew the operations of this Orphanage during the year :—

Movements of Inmates.

In residence, 1st October, 1886	15	
Admitted	35	
Total number of inmates	—	50
Discharged	36	
In residence, 30th September, 1887	14	
	—	50

Sex.

Male	48	
Female	2	
	——	50

Religious Denominations.

Protestant	2	
Roman Catholic	48	
	——	50

Nationalities

Canadian	44	
Irish	...	
Other countries	6	
	——	50

Places admitted from.

City of Kingston	14	
County of Frontenac	2	
Other counties	34	
	——	50

The receipts and expenditures of the Orphanage are included with those of the House of Providence, and cannot be shewn separately.

The collective stay of the children was 6973 days, entitling the Orphanage to receive the sum of $139.46, as Government aid for 1888.

Copies of the reports made by me to the Government upon this Orphanage are annexed :—

" I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I visited the Orphanage of the House of Providence, Kingston, on the 28th April. The names of 14 youths were registered as inmates.

" They were all in good health, and apparently every necessary provision was made for their comfort.

" I visited the House of Providence Orphanage, Kingston, on 4th September, and found that there were 12 youths being cared for. They were properly and neatly clad, and presented a healthy appearance. The books were properly kept."

———

HOTEL DIEU ORPHAN ASYLUM, KINGSTON.

The following summaries shew the operations of this Asylum during the year :—

Movements of inmates.

In residence, 1st October, 1886	37	
Admitted	271	
Total number of inmates		308
Discharged	267	
Death	1	
In residence, 30th September, 1887	40	
		308

Sex.

Male	167	
Female	141	
		308

Religious Denominations.

Roman Catholic	303	
Protestant	5	
		308

Nationalities.

Canadian	44	
English	262	
Other countries	2	
		308

Places admitted from.

City of Kingston	33	
County of Frontenac	8	
Other counties and countries	267	
		308

The income of the Asylum during the year amounted to $965.18, and the expenditure to $1,145.40.

The collective stay of the inmates was equal to 13,633 days, thus entitling the Institution to receive the sum of $272.66 as Government aid for 1888.

Copies of the reports made by me to the Government upon this Orphanage are annexed :—

" I visited the Hotel Dieu Orphanage, Kingston, on the 28th April.

" The inmates numbered twenty-seven, all of whom were in good health, and receiving every necessary care for their well being. The dormitories were neat and clean, and the books properly kept.

" I made a second inspection of the Hotel Dieu Orphanage, Kingston, for the current year on the 5th September.

" On the day of my visit there were 38 children registered under the charge of the Institution. The children all presented a good appearance and were in good health.

"A large number of emigrant children have been received during the past season, and have been temporarily kept by the authorities of this Orphanage until such time as situations could be found for them, and they were permanently located with families in the country. I found the books in proper order and the Orphanage properly kept.

ORPHANS' HOME OTTAWA.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1886	32	
Admitted	70	
Total number of inmates		102
Discharged	65	
Died	4	
In residence, 30th September, 1887	33	
		102

Sex.

Male	35	
Female	67	
		102

Religious Denominations.

Protestant	98	
Roman Catholic	4	
		102

Nationalities.

Canadian	54	
English	31	
Irish	15	
Scotch	2	
Other countries	..	
		102

Places admitted from.

City of Ottawa	80	
County of Carleton	12	
Other countries	10	
		102

The revenue of the Home was $3,853.32, and the expenditures were $4,231.04.

The collective stay of the children was equal to 14,748 days, thus entitling the Institution to receive the sum of $294.96 as Government aid for 1888.

Copies of the reports made to the Government by me upon this home are annexed:—

"I made an inspection of the Orphan's Home, Ottawa, on the 5th May.

"On that day there were 37 children being cared for, all of whom were in good health and comfortably clothed. They have for some time been in occupation of their new Home situated on Elgin Street. A portion of the building has

been fitted up for the accommodation of indigent females, nine of whom were being cared for. The new premises are well situated and extensive, having accommodation for at least 100 children. The building is heated throughout with steam, and every provision has been made for the comfort of the inmates by the introduction of modern appliances. It reflects much credit on the management.

"I saw all the children of school age assembled in classes; they were clean and bright looking.

"I made an inspection of the Protestant Orphan Home, Ottawa, on the 8th September, and found that there were 24 children and 7 old people being cared for in the Home.

"The children were all in good health, and had the appearance of being well looked after.

"The whole institution was in excellent condition, neatly and cleanly kept.

"I found the books in proper shape and fully entered up."

ST. PATRICK'S ORPHAN ASYLUM, OTTAWA.

The following summaries shew the operations of this Asylum during the years :—

Movements of Inmates.

In residence, 1st October, 1886	56	
Admitted	55	
Total number of inmates		111
Discharged	51	
Died	1	
In residence, 30th September, 1887	59	
		111

Sex.

Male	53	
Female	58	
		111

Religious Denominations.

Protestant	3	
Roman Catholic	108	
		111

Nationalities.

Canadian	66	
English	5	
Irish	39	
Scotch	1	
		111

Places Admitted from.

City of Ottawa	79	
Other parts of the Province	32	
		111

The income of this Orphanage was $11,800.52, inclusive of the Government grant, and the expenditure $11,639.85.

The collective stay of the children was equal to 21,755 days, entitling the Institution to receive the sum of $435.10 as Government aid for 1888.

Copies of the reports made to the Goverment by me upon this Orphanage, are annexed:—

"I visited the St. Patrick's Orphanage, Ottawa, on the 5th May, and saw all the inmates—33 boys and 32 girls—assembled in the class-rooms and nursery. They were all in good health, comfortably clad, and appeared to be well cared for.

"The Orphanage was in good order.

"I made an inspection of the St. Patrick's Orphanage, Ottawa, on the 8th September, and saw the youths under charge, 64 in number.

"I found the children in good health, and the premises in excellent condition."

ST. JOSEPH'S ORPHAN ASYLUM, OTTAWA.

The following summaries shew the operations of this Charity during the year:—

Movements of Inmates.

In residence, 1st October, 1886	96	
Admitted	110	
Total number of inmates		206
Discharged	92	
In residence, 30th September, 1887	114	
		206

Sex.

Male	85	
Female	121	
		206

Religious Denominations.

Roman Catholic	204	
Protestant	2	
		206

Nationalities.

Canadian	185	
Irish	21	
		206

Places admitted from.

City of Ottawa	180	
County of Carleton	19	
Other counties and places	7	
		206

The receipts of the Institution were $5,139.78, and the expenditures $5,152.18.

The collective stay of the children was 42,726 days, entitling the Asylum to receive the sum of $854.52 as the Government aid for 1888.

Copies of the reports made to the Government by me upon this Asylum, are annexed:—

"I visited the St. Joseph's Orphanage, Ottawa, on the 4th May.

"There were 125 children in residence on that date, namely, 8 males and 117 females, and all were in excellent health.

"The inmates are taught to do their own domestic work, and all appeared to to be happily engaged in their various employments.

"The building was in excellent order throughout, and the books properly kept.

"I made an inspection of the St. Joseph Orphanage, Ottawa, on the 7th September. There were 124 children under charge on the day of my visit, all of whom presented a neat and tidy appearance, and were in good health.

"Dormitories, school-rooms, and all the apartments of the building were in excellent condition, and shewed care and judgement on the part of the management. Everything appears to be done for the comfort and well being of the children."

ROMAN CATHOLIC ORPHANS' HOME, LONDON.

The following summaries shew the operations of this Orphanage during the year:—

Movements of Inmates.

In residence, 1st October, 1886	94	
Admitted	55	
Total number of inmates		149
Discharged	56	
Died	...	
In residence, September, 1887	93	
		149

Sex.

Male	79	
Female	70	
		149

Religious Denominations.

Roman Catholic	149	
		149

Nationalities.

Canadian	143	
Irish	6	
		149

Places admitted from.

City of London	42	
Other parts of Ontario	107	
		149

The receipts and expenditures of this Home are included with those of the House of Refuge.

The collective stay of these children was 32,665 days, entitling the Asylum to receive the sum of $653,30 as Government aid for 1888.

Copies of the reports made upon this Orphanage to the Government by Dr. O'Reilly are annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Roman Catholic Orphan Asylum, London, on the 14th July.

"There was a total of 85 children in residence on that date. Most of the children were out at a pic-nic on this occasion, and I did not see them. I inspected the building and found it in its usual very excellent condition in all its appointments.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I visited the Roman Catholic Orphan Home, London, on the 28th October. There were 92 children in the institution on that day.

"The premises were found to be in perfect order in every respect, as they always are.

PROTESTANT ORPHANS' HOME, LONDON.

The following summaries shew the operations of this Charity during the year :—

Movements of Inmates.

In residence, 1st October, 1886	48	
Admitted	30	
Total number of inmates		78
Discharged	27	
In residence, 30th September, 1887	51	
		78

Sex.

Male	48	
Female	30	
		78

Religious Denominations.

Protestant	77	
Roman Catholic	1	
		78

Nationalities.

Canadian	71	
English	3	
Irish	2	
Scotch	2	
	——	78

Places admitted from.

City of London	78	
	——	78

The receipts and expenditures of this Home are included with those of the Home for the Aged and Friendless, London.

The collective stay of the children was 17,483 days, entitling the Institution to receive the sum of $349.66 as Government aid for 1888.

A copy of the report made to the Government upon this Orphanage by Dr. O'Reilly is annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I made an inspection of the Protestant Orphans' Home, London, on the 14th July.

"There was a total of 54 children in residence on the day of my visit. The institution was in excellent condition throughout, and under the management of the new matron, Miss Call, it bids fair to continue in its prosperous career. There were two points which I noticed in connection with the Home, one is a shed in the play ground to shelter the children from the sun and rain at times; the other is the putting up of blinds in the western windows. Both of these improvements, if carried out, will add very much to the completeness of the Institution."

———

WOMENS' REFUGE AND INFANTS' HOME, LONDON.

The following summaries shew the operations of this Charity during the year:—

Movements of inmates.

In residence, 1st October, 1886	12	
Admitted	55	
Total number of inmates	——	67
Discharged	49	
Died	7	
In residence, 30th September, 1887	11	
	——	67

Sex.

Male (infants)	24	
Female	43	
	——	67

Religious Denominations.

Protestant	66	
Roman Catholic	1	
	——	67

Places admitted from.

City of London	48	
Counties in Ontario	18	
Other countries	1	
	——	67

The receipts during the year, exclusive of the Government grant of $418.69, were $1,638.39, and the expenditures $1,868.45.

The collective stay of the children equalled 4,213 days. The Home will, therefore, be entitled in respect of them to $84.26. The collective stay of those mother nurses, for whom 10 cents a day is allowed, was 1,594 days. The Home in respect of these will be entitled to $159.40.

The collective days' stay of those mother nurses, for whom 7 cents per day was allowed, was 317 days, for which they are entitled to receive $22.19.

The total grant to the Home, therefore, for 1888, will amount to $265.85.

Copies of the reports made to the Government by Dr. O'Rielly upon this Refuge, are annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Womens' Refuge and Infants' Home, London, on the 28th October.

"There were 4 women and 9 children resident in the Institution on that date. I found everything in a satisfactory condition."

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Womens' Refuge and Infants' Home, London, on the 14th July.

"It contained on that date, 4 women and 12 children, all of whom are in good health, and thus far this year there has not been any sickness in the Institution.

"The mortality record is very satisfactory indeed ; with a total of fifty-five infants cared for during the twelve months, there has been only ten deaths."

PROTESTANT HOME (ORPHANAGE BRANCH), ST. CATHARINES.

The following summaries shew the operations of this Charity during the year :—

Movements of Inmates.

In residence, 1st October, 1886	30	
Admitted	5	
Total number of inmates	——	35
Discharged	10	
In residence, 30th September, 1887	25	
	——	35

Sex.

Male	25	
Female	10	
	——	35

Religious Denominations.

Protestant	35	
	——	35

Nationalities.

Canadian	25	
English	4	
Irish	2	
Other countries	4	
	——	35

Places admitted from.

City of St. Catharines	29	
County of Lincoln	6	
	——	35

The revenue and expenditure of the Home during the year amounted to $1,980.37 and $2,011.17, respectively. The receipts and expenses connected with the Refuge Branch of the Home are also included in these sums.

The collective stay of the children was 9,669 days, entitling the Institution to receive the sum of $193.38 as Government aid for 1888.

Copies of the reports made to the Government by Dr. O'Rielly upon this Home, are annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Protestant Home, St. Catharines, on the 8th November, when there were 36 inmates.

"I only saw two of the children, as all the others were absent at school in the city, where they attend regularly.

"I noticed in this Institution, one matter which seems to require very urgent attention. The straw used for bedding is kept in one of the upper rooms of the building. This is utterly inadmissible, being a most dangerous practice in respect of fire. Any carelessness in leaving the door of the appartment open would make it possible for the children to play about in the straw with probably very bad results. I cannot imagine why, when the erection of a straw shed in the yard is such a simple matter that some such arrangement has not been provided. I trust the ladies will lose no time in having this objectionable feature attended to.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Protestant Home, St. Catharines, on the 8th August.

"There were then 27 inmates, namely, 20 males and 7 females.

"The building was in its usual good order."

ST. AGATHA'S ORPHAN ASYLUM, ST. AGATHA.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1886	38	
Admitted	10	
Total number of inmates	——	48
Discharged	10	
In residence, 30th September, 1887	38	
	——	48

Sex.

Male	31	
Female	17	
	——	48

Religious Denomination.

Roman Catholic	48	
	——	48

Nationality.

Canadian	48	
	——	48

Places admitted from.

Village of St. Agatha	1	
County of Waterloo	46	
Other counties	1	
	——	48

The revenue of the Asylum was $1,076.04 including the Government grant of $269.74, and the expenditures were $1,076.47.

The collective stay of the children was 14,319 days, entitling the Asylum to receive the sum of $286.38 as Government aid.

Dr. O'Reilly instructed Mr. English to make an inspection of this asylum who reported as follows :—

"Acting under the instructions of the Inspector of Prisons I made an inspection of the St. Agatha Orphan Asylum on the 8th October.

"There were in residence twenty-five boys and thirteen girls from five months old to thirteen years.

"I found everything about the Home in excellent order."

———

THE HOME (ORPHANAGE BRANCH), ST. THOMAS.

The following summaries shew the operations of this Charity during the year :—

Movements of Inmates.

In residence, 1st October, 1886	...	
Admitted	3	
Total number of inmates	——	3
Discharged	3	
In residence, 30th September, 1887	...	
	——	3

Sex.

Male	2	
Female	1	
	——	3

Religious Denominations.

Protestant	1
Roman Catholic	2

Nationality.

Canadian	3	
		3

Place admitted from.

City of St. Thomas	3	
		3

The receipts and expenditures are included with those of the Refuge.

The collective stay of the children was 105 days days, entiling the Home to receive the sum of $2.10. as Government aid for 1888.

THE ORPHANS' HOME, FORT WILLIAM.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1886	36	
Admitted	23	
Total number of inmates		59
Discharged	12	
Died	...	
In residence, 30th September, 1887	47	
		59

Sex.

Male	25	
Female	34	
		59

Religious Denominations.

Protestant	9	
Roman Catholic	50	
		59

Nationality.

Canadian	59	
		59

Places admitted from.

Port Arthur	13	
From other parts of Ontario	46	
Foreigners	...	
		59

The revenue of the Orphanage was $1,485.43, excluding the Government grant of $796.90, and the expenditure $2,419.33.

The collective stay of the children was 13,771 days, entitling the Institution to receive the sum of $275.42, as Government aid for 1888.

MAGDALEN ASYLUMS.

The first Table connected with this part of the Report shows the operations of each of the Institutions coming under this head.

Names of Magdalen Asylums.	Location.	No. of persons in residence on 1st October, 1886.	No. admitted during the year 1887.	Total number under lodgment during the year.	No. of discharges during the year.	No. of deaths during the year.	No. in residence 30th September, 1887.
Industrial Refuge	Toronto	27	42	69	44	1	24
Good Shepherd Refuge for Fallen Women	"	43	43	86	31	2	53
Good Shepherd Magdalen Asylum	Ottawa	89	85	174	72	2	100
Totals		159	170	329	147	5	177
" 1886		172	287	459	244	26	189

The statistics from each Asylum, in respect of sex, religious denominations, nationalities and previous residences of the inmates, have been summarized as under:—

Sex.

Male	44	
Female	285	
		329

Religious Denominations.

Protestant	160	
Roman Catholic	169	
		329

Nationalities.

Canadian	154	
English	34	
Irish	105	
Scotch	27	
United States	4	
Other countries	5	
		329

Previous Residence.

Received from city or town in which institutions are located	275	
Received from counties in which institutions are located	10	
Received from other counties in the Province	22	
Emigrants and foreigners	22	
		329

The next table shews the aggregate stay of the inmates of each Institution, the revenue, and the amount of the Government grant for the year 1888. Following that is one exhibiting the total expenditure for maintaining the Institutions and the average cost per inmate per day. In each case the totals of the similar tables in the report of the preceding year are given.

Following the tables referred to are the separate reports upon each Institution.

Names of Magdalen Asylums.	Location.	Aggregate days' stay of inmates.	Total expenditure for maintenance during the year.	Aggregate cost per inmate per day.
			$ c.	Cents.
Industrial Refuge	Toronto	10116	3880 68	38.36
Good Shepherd Refuge for Fallen Women	"	18107	9870 05	54.51
Good Shepherd Magdalen Asylum	Ottawa	35214	7226 02	20.52
Totals		63437	20976 75	33.06
" 1886		69541	20042 95	28.82

Names of Magdalen Asylums.	Location.	Aggregate days' stay of inmates.	Amount received from all sources other than Government.	Total Government grant for the year 1888 at the rate of two cents per day.
			$ c.	$ c.
Industrial Refuge	Toronto	10116	4179 37	202 32
Good Shepherd Refuge for Fallen Women	"	18107	9552 29	362 14
Good Shepherd Magdalen Asylum	Ottawa	35214	6271 55	704 28
Totals		63437	20003 21	1268 74
" 1886		69541	18368 17	1390 82

SEPARATE REPORTS.

INDUSTRIAL REFUGE, TORONTO.

The following summaries shew the operations of this Institution during the year:—

Movements of Inmates.

In residence, 1st October, 1886	27	
Admitted	42	
Total number of inmates		69
Discharged	44	
Died	1	
In residence, 30th September, 1887	24	
		69

Religious Denominations.

Protestant	51	
Roman Catholic	18	
		69

Nationalities.

Canadian	20	
English	17	
Irish	27	
Scotch	3	
Other countries	2	
		69

Places admitted from.

City of Toronto	69	
		69

The revenue of the Asylum, exclusive of the Government grant of $217.58 amounted to $4,179.37, and the expenditures to $3,880.68.

The collective stay of the inmates was 10,116 days, entitling the Institution to recive the sum of $202.32 as Government aid for 1888.

Copies of the reports made to the Government by me upon this Institution are annexed:—

"I visited the Industrial Refuge, Toronto, on the 26th January, and saw the 27 inmates then in residence. They were all undoubtedly objects of charity requiring the care and comforts which such an institution as this affords them.

"The records showed that since the commencement of the official year, 16 women had been received, and during the same period, 12 of the inmates had been written off, as they would not remain; 1 had died; 1 had been sent to the Haven: and 2 had been sent to situations as servants.

"The average population of the institution for the past four months was 28, consequently, the change had been equal to the number admitted, and presuming that the above is a fair indication of the changes taking place from time to time. it would follow that the average stay of the entire population does not exceed four months, and that it undergoes a complete change three times a year. Every

inducement is held out to those making the Institution their home, to remain for a term of twelve months, and at the end of that time, in event of good conduct, they receive an outfit of clothing or are otherwise assisted.

"I found the Refuge clean and tidy throughout, and the books properly kept.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made a visit of inspection of the Industrial Refuge, Toronto, on the 23rd August.

"The inmates on that date numbered 27, all of whom I saw. Those physically able were busily employed in laundry work, etc.

"The Refuge was clean and tidy, and the books properly kept. The inmates were apparently being carefully and judicially looked after."

GOOD SHEPHERD REFUGE FOR FALLEN WOMEN, TORONTO.

The following summaries shew the operations of this Refuge during the year:—

Movements of Inmates.

In residence, 1st October, 1886	43	
Admitted	43	
Total number of inmates		86
Discharged	31	
Died	2	
In residence, 30th September, 1887	53	
		86

Religious Denominations.

Protestant	2	
Roman Catholic	84	
		86

Nationalities.

Canadian	47	
English	19	
Irish	12	
Other countries	8	
		86

Places admitted from.

City of Toronto	67	
County of York	3	
Other counties and countries	16	
		86

The income of this Charity, exclusive of the Government grant of $317.76, was $9,552.29 and the expenditure $9,870.00.

The collective stay of the inmates was 18,107 days, entitling the Institution to receive the sum of $362.14 as Government aid for 1888.

Copies of the reports made to the Government by me upon this Institution, are annexed:—

"I made an inspection of the Good Shepherd Refuge, Toronto, on the 18th February, and saw the 48 adults and 3 youths then under charge. I found the house in good order, and the inmates busily employed in their usual occupations.

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Good Shepherd Refuge, Toronto, on the 24th June, There were then 50 names upon the register, namely, 45 adults and 5 youths.

"I found the Charity in its usual condition of order and cleanliness, and the inmates busily employed. The books were in good order and neatly kept."

GOOD SHEPHERD MAGDALEN ASYLUM, OTTAWA.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1886	89	
Admitted	85	
Total number of inmates	——	174
Discharged	72	
Died	2	
In residence, 30th September, 1887	100	
	——	174

Religious Denominations.

Roman Catholic	171	
Protestant	3	
	——	174

Nationalities.

Canadian	98	
English	6	
Irish	57	
Scotch	2	
Other countries	11	
	——	174

Places admitted from.

City of Ottawa	99	
County of Carleton	39	
Other counties	25	
Other countries	11	
	——	174

The receipts of the Institution during the year, exclusive of the Government grant of $566.10, were $6,271.55, and the expenditures $7,226.02.

The collective stay of the inmates was 35,214 days, entitling the Institution to receive the sum of $704.28 as Government aid for 1888.

Copies of the reports made to the Government by me upon this Institution, are annexed :—

"I visited the Good Shepherd Magdalen Asylum, Ottawa, on the 4th May, when then there were 96 persons registered as inmates, 10 of whom were youths under twelve years.

"A spring freshet, caused by the overflow of the Ottawa River, had again flooded the premises, and on the day of my visit, a number of the inmates were ailing from malaria in consequence.

"I found the Institution in its usual good order, and the books were neatly and correctly kept.

"I made an inspection of the Good Shepherd Magdalen Asylum, Ottawa, on the 7th September, and on that day there were in residence, 100 females in the four different classes, into which the population of this charity is divided.

"I found the inmates kept thoroughly employed in laundry work, sewing, etc., and the Asylum was in good order. The books were properly kept."

SIXTH ANNUAL REPORT

OF THE

PROVINCIAL BOARD OF HEALTH

OF ONTARIO,

BEING FOR THE YEAR 1887.

Printed by Order of the Legislative Assembly.

Toronto:
PRINTED BY WARWICK & SONS, 68 AND 70 FRONT STREET WEST.
1888.

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PART II.

Annual Reports from Local Boards of Health.

SIXTH ANNUAL REPORT

OF THE

PROVINCIAL BOARD OF HEALTH.

To His Honour Sir Alexander Campbell, K.C.M.G.,
Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

The Provincial Board of Health begs leave to present this its Sixth Annual Report. In doing so the Board takes pleasure in informing your Honour that during the year the Province has been free from Smallpox and Cholera, the two diseases which invariably cause widespread alarm whenever their presence is known or their approach with reason expected. While realizing, however, with thankfulness this immunity in the past year, your Board does not fail to remember that so long as this continent holds commercial relations with the crowded centres of population in Europe, Asia and South America, where these diseases may be said to have become endemic, there must continue to exist the danger that from time to time cases of both diseases will reach United States and Canadian ports, and that the safety of these two countries will depend wholly upon the vigilance with which the gates of entry thereto are guarded. As regards the work of the Board in this direction it is satisfactory to be able to inform your Honour, that the Board's efforts to bring before the proper authorities the importance to the Province of having our Dominion Quarantine System as completely equipped as is possible with the present state of scientific knowledge on the subject have not been wanting in results. To-day we have the pleasure of knowing that at the chief ports of entry for immigrants to the Dominion, along the St. Lawrence, there is in operation under the quarantine regulations of 1887 a system of inspection as complete in most respects as at the famous station of the Mississippi below New Orleans. The improvements contemplated for 1888 will make this high state of efficiency still greater. The Board begs further to say that in consequence of the importation of Asiatic cholera to New York in September and of the revelations regarding the crude and imperfect state of the quarantine system there, which made it possible for the disease to exist for a period of two months in that port, your Board through its representative brought these matters before the American Public Health Association, at its last meeting in Memphis in November, and made enquiries as to what protection Canada was to expect through the American quarantine.

The absence of any unified system of quarantine for the United States, makes this question a grave one for Canada as also for internal American States; and the representatives of internal States have publicly warned the Atlantic States authorities that internal or land quarantine will be rigidly enforced against any such ports, which through neglect allow these diseases to find serious foothold within them. That the entry of such

diseases to Canada becomes possible through such sources we have abundant evidence, inasmuch as the Montreal smallpox outbreak of 1885 was occasioned through the importation of the disease primarily from New York.

We regret to have to state that Diphtheria to which very extended reference was made in the Report for 1886, has continued in many municipalities during the past year, in some localities assuming the appearance of a localized epidemic. The various facts regarding it have been fully set forth in the Report of the Secretary which follows this introduction. The intimate relations which this and other diseases have been found to have with public milk supplies have caused the Board to bring from time to time the attention of milk inspection both before your Government and those of our municipalities. It is with much pleasure we draw your attention to the series of reports on the subject found in the Report of this year as also of 1886, and inform you that everywhere throughout the Province Local Boards are realizing the immense importance of the question, and many are instituting rigid systems of registration and inspection, as also of milk standards and milk analysis. The dangers which arise from either none or defective systems of sewerage are from year to year more largely impressing themselves upon our Local Boards and, as will be learned from the reports which follow, various cities and towns have been moving to secure public systems of sewerage. Similarly their counterpart public water supplies are being enquired into; and on all sides, as will be gathered from the special reports and annual reports of Local Boards, the search after sufficient and pure local supplies is proceeding rapidly.

The reference made to this Board by the Local Board of Guelph Township, regarding the existence of a mysterious disease which had been destroying cattle pasturing on certain flats along the river Speed below Guelph city, caused enquiries to be instituted, resulting, as will be seen in the detailed report on the subject printed herewith, in the conclusion that the disease was none other than "Charbon," "Splenic Disease" or Anthrax, which for many years has proved a source of enormous loss to France, Germany and other European, as also Syrian countries. That the disease tends to spread can be gathered from the report on this subject for 1887 of the Agricultural Department of the Privy Council, Great Britain.

No herbivorous animals are immune from its attacks, while man, when exposed suffers seriously.

The importance of eradicating the disease before it obtains a foothold in this Province is paramount; and your Government have had brought before it such measures as the Board deems practicable toward the desired end. The intimate relations which the work of this Board holds toward that of the agricultural interests of the Province, as seen in these last paragraphs, make it most desirable that facilities for conjoint action, whenever necessary, be supplied. The work of enquiry in these directions has its necessary sequence in action; but in both these your Board finds the facilities at its command greatly limited. Every Department of Health to-day in order to do effective work must have means for investigating outbreaks and causes of disease; and it is to be hoped that your Government will find it possible to place such, at no distant date, at the command of the Board.

FRANCIS RAE,
Chairman Provincial Board of Health.

REPORT OF THE SECRETARY.

To the Chairman and Members of the Provincial Board of Health :

Gentlemen,—In bringing to your notice the work of the year, it is with special pleasure that I recall to your attention the fact that the Province has, during another year, been free from epidemic outbreaks of any disease which, like cholera and smallpox, cause widespread alarm, thereby affecting the steady and daily operations of commerce and the safety of the lives of the people at large. It will not, however, be absent from your recollection that other diseases of a zymotic character have been present in an endemic form, and in some cases even as local epidemics ; and were it not that some of those have become almost endemic, we doubt not they would have been dreaded as much as either of those mentioned.

I.—*OUTBREAKS OF DISEASE AND ISOLATION HOSPITALS.*

We have to refer especially to diphtheria, which has been present in many populous centres and which, as referred to in the last Annual Report, had in the last quarter of 1886 attacked the inmates of one of our public institutions, to the extent of creating general alarm and directing the attention of the Board to the discussion of what measures ought to be taken for dealing with a disease so fatal in its consequences, while so insidious in its onset and appearance. The recommendations then adopted by the Board were not sanctioned by an Order in Council, but the statutory enactments of the Legislature of 1887 placed the Board in the position of having to enquire into the measures which Local Boards were adopting for stamping out this and other scheduled diseases, appearing amongst them. The powers contained in section 6 of said Act are of a character so important, that your Board discussed the question of how far the clause demanded enquiry into those facilities which are now deemed necessary to be constantly at hand for isolating first cases of zymotic diseases when they do appear. The following remarks by the efficient Medical Health Officer for Chelsea, London, England, puts the case as it appears everywhere most concisely regarding notification and isolation. Speaking about scarlet fever, which has recently prevailed in parts of London, he says, " In the case of scarlet fever the complete separation of the sick from the healthy is the most important precautionary measure. We have had an illustration of the advantages of isolation in this parish during the present epidemic. In the poorest parts the parents have almost all been willing to let their children be removed to the hospitals, which are maintained for the purpose of isolating cases of scarlet fever which cannot be isolated at home ; the result has been that we have been comparatively free from the disease. But, on the other hand, in the outlying part of the parish, which comprises the Queen's Park estate, where the houses are of a superior class to those I have referred to, a large proportion of the cases have been treated at home. The circumstances of the family have been such as to preclude the possibility of anything like complete isolation, and as a natural consequence the disease has prevailed far more extensively in that district. The isolation of a person may be carried out in three ways. In a large house a separate floor at the top may be devoted to the sick and the nurse, all communication practically being cut off. In a smaller house, where such is impossible, the patient can be kept at home if the others who are not infected be provided for elsewhere. This plan is, however, imperfect and seldom practicable. The third alternative is to send the case to a hospital, where in the vast majority of cases isolation can be far better carried out than at home."

Acting upon the supposition that from the practical standpoint, the Board ought to endeavour to prevent outbreaks of such diseases, the Board had drawn up by its Com-

mittee on School Hygiene, a memorandum* setting forth the clauses of the Act bearing upon the duty of teachers and trustees with regard to cases of contagious disease appearing amongst school children or in the families whence they come, and transmitted them to the Department of Education, recommending that the Department issue model forms for the use of the School Boards, and that it urge their adoption upon these latter.

The Department acknowledged the reception of them with thanks, and it was stated by the Minister of Education to be his purpose to utilize the reccommendations in such manner as to him might be deemed most convenient and effective. The sections of the Public Health Act, 1887, bearing upon the subject have been printed in the last edition of the School Regulations, but we do not understand that any blank forms as models have been issued by the Department to the School Boards. We trust that so important a matter will not be omitted during the coming year, as our personal experience as

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*Toronto, July 25th, 1887.

To.....Teacher of.....
School, Municipality of.....

Sir,—According to a resolution adopting the report of the committee on school hygiene of the Provincial Board of Health, dated March 18th, 1887, the Secretary of said Board was instructed to communicate with the Department of Education urging publication and transmission to all public and high school authorities of the provisions of the Health Acts for controlling contagious diseases amongst school children.

To this end the various clauses of the Acts and regulations have been arranged in the following order; and in addition thereto there have been appended the points which, in the report of the committee on school hygiene, were recommended to be contained in blanks to be supplied to the teacher by the school authorities as provided by the Act.

Statutory Provisions

Re school protection against infectious diseases.

1. Whenever a case of smallpox, cholera, scarlatina, diphtheria, whooping cough, measles, mumps, glanders, or other contagious disease exists in any house or household belonging to which are persons attending school, the householder shall, within eighteen hours of the time such disease is known to exist, notify the head teacher of such school or schools and also the Secretary of the Local Board of Health of the existence of such disease, and no member of such household shall attend school until a certificate has been obtained from the Medical Health Officer or legally qualified medical practitioner that infection no longer exists in the house, and that the sick person, house, clothing and other effects have been disinfected to his satisfaction; and until such certificate shall have been obtained, it shall be the duty of every member of the household, and of the teacher, to use all reasonable efforts to prevent the association of members of the said household with other children. (Section 1, Cap. 34, Stat. 1887.)

2. Whenever the Local Board of Health or any of its officers or members knows of the existence in any house of smallpox, cholera, scarlatina, diphtheria, whooping cough, measles, mumps, glanders or other contagious disease, they shall at once notify the head or other master of the school or schools at which any member of the household is in attendance; and should it not be evident that said member has not been exposed to said diseases, or any of them, the teacher must forthwith prevent such further attendance until the several members present a certificate stating that infection no longer exists, as provided in the preceding sub-section.

3. Whenever a teacher in any school has reason to suspect that any pupil has, or that there exists in the home of any pupil any of the above mentioned diseases, he shall be required to notify the Medical Health Officer, or, where none such exists, the Local Board of Health, on forms supplied by the school authorities, in order that evidence may be had of the truthfulness of the report; and he shall further be required to prevent the

practitioners and the reports received from time to time indicate that diphtheria and other zymotics especially affecting children are much more largely disseminated by means of the public schools than through any other channel.

In connection with this same point your Board discussed very fully in a report introduced by the Committee on Foods, Drinks and Adulterations, the bearing of the same clause on the control which Local Boards should exercise over that source of food of first importance to health, viz: our public milk supplies. Realizing from recent evidence collected on every hand how liable this food is to carry germs of disease, through its being a good culture medium, and how in a triple sense the dangers of its direct contamination exist, either (*a*) through diseased cows; (*b*) through the persons handling the milk and milking the cows; (*c*) through its standing in impure cellars, shops, or receiving polluted

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attendance of said pupil or pupils until medical evidence of the falsity of the report has been obtained.

School trustees may require certificates of vaccination.

2. It shall be lawful for the trustees or any public, separate or high school to provide that no child shall be permitted to attend any such school without producing a certificate of successful vaccination when demanded of him or her by the teacher. (Cap. 43, Sec. 2, Stat. 1886.)

Students of High Schools, etc., may be required to produce certificates of vaccination.

3. In all cases when it is deemed necessary by the Medical Health Officer of any municipality owing to the presence or threatened presence of smallpox, he may, with the approval of the Local Board of Health, require certificates of successful vaccination, or of insusceptibility on revaccination within seven years of all students of high schools, collegiate institutes, colleges and universities within the municipality to be presented to the proper authorities of said institution, and no student refusing to present such certificate on demand shall be admitted to further attendance on classes in said institution until such certificateis furnished. (Cap. 43, Sec. 3, Stat. 1886.

REGULATIONS.

4. No pupil who is affected with or exposed to any contagious disease shall be permitted to attend school until he produces the certificate of a medical man that all danger from his mingling with other pupils or from his exposure to the disease has passed away. (Sec. 35 School Regulations; approved Aug. 25th, 1885.)

PROPOSED BLANK FORM FOR TEACHER'S REGISTER.

1.	2.	3.	4.	5.	6.	
Name of pupil absent sick.	Names of pupils absent through illness of others.	Date of notification received from. From School Board. From Local Board. From Medical Health Officer.	Name of disease.	Date of certificate of recovery with name of physician.	Date of readmission.	Enquiries by teachers and remarks regarding the suspected cases.

waters, the Board deemed the time most opportune when the danger was pressing, of obtaining an official expression of opinion from the head of the Department as to the scope of clause 6. The report of the Committee, the memorandum and the reply of the Minister thereto are found printed in a report found in a later part of this report. The opinion subsequently expressed by the Minister in an interview was to the effect that undoubtedly the clause enabled the Board to insist upon the periodical inspection of milk in those municipalities where outbreaks of such diseases existed, as are commonly considered and known to be communicated through milk.

Through the various stages of this interesting and important matter, observation was not wanting of how those engaged in the businesses of practical cheese-making and butter-making were similarly discussing measures by which they would be more likely to receive for these purposes milk, rich, wholesome and unadulterated either by disease in man or animals or by polluted water. †

Blank Form Sent by Teacher to Medical Health Officer or Local Board.

Christian name and surname of patient.....
Age of patient.....
Locality (giving street, number of house or lot) where patient is .....
Name of suspected disease .....
Number of children from that house attending school.....

Signature of Teacher.....
Teacher in.....School.

† The following are copies of the bills passed with this end in view in the House of 1888, being Caps. 24 and 32 :—

An Act to provide for the incorporation of Cheese and Butter Manufacturing Associations.

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows :—

1.—(1) At any time hereafter, any five or more persons who desire to associate themselves together for the purpose of manufacturing cheese or butter, may make, sign and acknowledge before a notary public, commissioner or justice of the peace, in duplicate, and file in the office of the registrar of the registry division in which the business is to be carried on, a certificate in writing, in the form mentioned in the schedule to this Act, or to the same effect, together with the rules and regulations, signed by such persons respectively.

(2) The signatures to the rules shall be verified by the affidavit of a subscribing witness thereto, made before a notary public, justice of the peace or commissioner authorized to take affidavits, or before the the registrar or deputy-registrar.

(3) Upon the filing of the certificate and rules as aforesaid, the members of the association shall become a body corporate, by the name therein described, with the power to hold such lands as are required for the convenient management of their business.

(4) The registrar or deputy-registrar shall, if desired by the person filing the certificate, endorse on the other duplicate certificate and upon the duplicate of the rules certificates of the other duplicates having been filed in his office, with the date of filing, and every such certificate shall be *prima facie* evidence of the facts stated therein, and of the incorporation of the association.

(5) All rules made by the association may be repealed, altered or amended by other rules passed at a regular meeting called for that purpose, provided no such new rule shall have any force or effect until a copy, proved by the affidavit of the president or other head officer of the association to be a true copy of the rule or rules passed by the association at a meeting specially called for the purpose of considering the same, has been filed in the registry office in which the certificate of incorporation was filed.

(6) The association shall cause a book to be kept by the secretary, or by some other officer especially charged with that duty, wherein shall be kept,

(*a*) A duplicate of the certificate and of the rules filed as aforesaid in the office of the registrar, so that persons becoming members of the association may sign the said certificate and rules.

(*b*) Any person so desiring to become a member of, or a stockholder in the said association after incorporation as aforesaid, may sign the said certificate and rules in the said book and shall thereupon become such member, and he shall be entitled to the rights and privileges thereof, and shall become liable as such member as fully as though he had signed the certificate prior to the said incorporation of the association.

In furtherance of the Board's views, the Committee on Epidemics was instructed to draw up recommendations which were to be forwarded to Local Boards, with the request that these or similar regulations be adopted, regulating within their jurisdiction all public milk supplies. I am happy to say that the information obtained up to date indicates that Local Boards generally, are discussing them, and in a good number of instances adopting them. Like all other measures bearing upon the exercise of a supervision, which in order to be of any use must be constant, we recognise that it seems much easier to adopt a *laissez faire allez* policy; but the evidence from those places where active executive officers exist, goes to show that with the powers at their command it is surprisingly easy to effect a very great improvement both in the quality and cleanliness of these supplies, simply by making the license to sell dependent upon conformity with reasonable regulations.

OFFICE OF THE PROVINCIAL BOARD OF HEALTH,
TORONTO, November 28th, 1887.

To the Chairman and members of Local Boards of Health:—

GENTLEMEN,—As you are doubtless aware clause 5 of the Public Health Act of 1887 provides that: "The Medical Health Officer under the direction of the Local Board of Health shall have authority to make or cause to be made by a Veterinary Surgeon, or such other competent person as the circumstances may require, a periodic inspection of all dairies, cheese factories and creameries, dairy farms and slaughter-houses, which come within his or their jurisdiction"; and clause 6 of the same Act further places upon this Board the duty of enquiring into the various measures which are adopted by Local Boards throughout the Province in the interests of the public health.

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2. No association shall be registered under a name identical with that by which any other existing association has been registered, or so nearly resembling such name as to be likely to deceive the public.

3. Any certificate so to be filed may designate any one or more places where the business is to be carried on; but if in different registry divisions, a duplicate must be filed in the registry office of each division.

4. A member of an association incorporated under this Act may have shares therein to an amount mentioned in the by-laws of the association not to exceed $1,000.

5. Before an association commences operations under this Act, they shall agree upon and frame a set of rules for the regulation, government and management of the association, which shall contain—(1) a mode of convening general and special meetings; (2) provisions for audit of accounts; (3) power and mode of withdrawal of members; (4) appointment of managers and other officers and their respective duties, and a provision for filling vacancies caused by death, resignation and other causes.

6. The rules of every association registered under this Act shall bind the association and members thereof to the same extent as if each member had subscribed his name and affixed his seal thereto; and all moneys payable by any member to the association, in pursuance of said rules, shall be deemed to be a debt due from such member of the association.

7. The capital of the association shall be in shares of such denomination as mentioned in the rules.

8. The shares of the association shall be transferable subject to the consent and approval of the association.

9. All elections shall be by ballot, and each member shall have one vote for each share held by him, in respect of which he is not in default for any calls made thereon.

10. Every dispute between members or between members and the association established under this Act, or any person claiming through or under a member or under the rules of the association, and the directors, treasurer or other officers thereof, shall be decided by arbitration in manner directed by the rules of the association, and the decision so made shall be binding and conclusive on all parties without appeal.

11. The liability of the shareholders shall be limited, that is to say, no shareholder in such association shall be in any manner liable for or charged with the payment of any debt or demand due by the association beyond the amount of his share or shares subscribed for, and any shareholder having fully paid up the amount of his said share or shares shall be absolved from all further liability.

12. The fees to be charged by the registrar for filing any certificate shall be fifty cents, and for any search relating thereto ten cents.

SCHEDULE.

(*Section 1 (1).*)

FORM OF CERTIFICATE.

Province of Ontario, } We (*insert names of subscribers not less than five*) do hereby certify that we desire
TO WIT: } to form a company or association pursuant to the provisions of the "Act to provide for the incorporation of Cheese and Butter Manufacturing Associations."

The corporate name of the association is to be (*insert name of the association*), and the objects for which the association is to be formed are (*insert objects for which the association is formed*). The number of

In view therefore of the importance of the provisions contained in clause 5 of the Act already quoted, and of section 10 of schedule A of the Act of 1884, and owing to information received from time to time to the effect that no systematic inspection of public milk supplies exists in many municipalities in the Province, the Provincial Board recognizing the, now well-ascertained, dangers of the transmission of Typhoid Fever, Diphtheria and other infectious diseases by means of impure milk, has instructed its Committee on Foods and Adulterations to prepare for distribution to Local Boards certain recommendations, which it is hoped will form a basis for such regulations as the Local Boards of the several municipalities will deem proper to adopt. The fact that there are many rural municipalities, where there is no so-called public milk supply, will not, it is hoped, prevent their Local Boards from insisting, in the public interest, that the precautions which are deemed necessary for larger places, be carried out by those farmers residing in their districts who may be shippers of milk to cheese factories, creameries or to the large centres. In order that such inspections may be effective and systematic we have arranged in order the following regulations :

Reg. 1. All dairymen and vendors of milk shall, at least once a year, register with the Medical Health Officer, or Secretary of the Local Board, where no such Medical Officer exists, of the Municipality (in a register supplied by the Board for such purpose), (1) their names and addresses, (2) the source or sources of their milk supplies, (3) the number of cows in their possession, (4) the average quantity of milk disposed either (*a*) to milk shops, (*b*) milk vendors, (*c*) or to private consumers.

Reg. 2. That at such registration, a statement be made by all keepers of cows for public supplies as to the kind of foods supplied to their cows ; if (*a*) of brewers' grains, (*b*) distillery slops, (*c*) starch factory by-products, (*d*) ensilage or (*e*) oil-cake ; the amounts in proportion to the total food supplied.

Reg. 3. That periodic inspections be carried out under direction of the Board by its Medical Health Officer or Sanitary Inspector, in accordance with the spirit and provisions of sec. 5, Health Act, 1887, and sec. 10, schedule A, Health Act, 1884.

Reg. 4. That the dairyman or milk vendor agrees, as a condition of receiving license, to comply with the various clauses of the Health Acts, by giving notice to the Local Board of any cases of contagious animal diseases, (defined in clause of Public Health, 1887), occurring amongst his cattle, or of any scheduled contagious diseases in his family, or in the farm, house or shop at which, from which, or in which the milk is either sent or received, and that he further shall carry out the restrictions laid upon him by the Local Board under any Public Health Act.

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shares is to be unlimited and the capital is to consist of shares of (*insert amount of shares*) each, or of such other amount as shall, from time to time, be determined by the rules of the association. The number of the trustees who shall manage the affairs of the association shall be (*insert the number of trustees*), and the names of such trustees are (*insert names of trustees*), and the name of the place (*or* places), where the operations of the said association are to be carried on is (*or* are) (*insert name of place or places where the operations of the said association are to be carried on*).

Dated the day of

(Signatures.)

On the day of A.D. 18 , before me personally appeared (*insert names of the subscribers to the certificate*) to me known to be the individuals described in the foregoing certificate and they severally before me signed the said certificate and acknowledged that they signed the same for the purposes therein mentioned.

A. B.,
Justice of the Peace, *or*
Commissioner for taking Affidavits, *or*
Notary Public.

AN ACT TO PROVIDE AGAINST FRAUDS IN THE SUPPLYING OF MILK TO CHEESE OR BUTTER MANUFACTORIES

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows :—

1. No person shall knowingly and wilfully sell, supply, bring or send to a cheese or butter manufactory, or the owner or manager thereof, to be manufactured, milk diluted with water, or in any way adulterated, or milk from which any cream has been taken, or milk commonly known as "skimmed milk," without distinctly notifying, in writing, the owner or manager of such cheese or butter manufactory, that the milk so sold, supplied or brought to be manufactured has been so diluted with water, or adulterated, or had the cream so taken from it, or become milk commonly known as "skimmed milk," as the case may be.

2. No person who in the course of his business sells, supplies, brings or sends to any cheese or butter manufactory, or the owner or manager thereof, to be manufactured, the milk of cows, shall knowingly and wilfully, in the course of such dealing and business, keep back any part of the milk known as "strippings," without distinctly notifying, in writing, the owner or manager of such cheese or butter manufactory, of his having so kept back such "strippings."

3. No person shall knowingly and wilfully sell, supply, bring or send to a cheese or butter manufactory, or the owner or manager thereof, to be manufactured, any milk that is tainted, or partly sour, without distinctly notifying, in writing, the owner or manager of such cheese or butter manufactory of such milk being tainted or partly sour.

4. Any person who by himself, or by his servant, or agent, violates any of the provisions of the preceding sections of this Act, upon conviction thereof before any justice or justices of the peace, shall forfeit

Reg. 5. The milk vendor agrees to provide milk of a standard quality, the test values of each grade of milk to be as follows :—

Grades.	Solids.	Fat.
No. 1 Quality.....	14.00 per cent.	4.75 per cent.
No. 2 "	13.00 "	4.00 "
No. 3 " (Government minimum average).	12.00 "	3.50 "

Reg. 6. That the Local Board through its Medical Health Officer shall grant a yearly license to each dairyman, milk vendor and milk shop, after compliance of said person with the provisions of said regulations ; provided that at any time such license may be recalled on sufficient proof being had by said Board or its Officer of violation of the terms of the regulations, or of any clause of the Public Health Acts.

The following form for register is suggested :

FOR REGISTRY BOOK.

Name.	Address.	Locality of Source of Supply.	No. of Cows.	Quantity of Milk Supplied.		Food Supply.	I hereby agree to report any infectious disease that may occur in my family, or in my house or shop, and whatever disease may occur amongst my cattle to the Medical Health Officer of this Municipality.
				To Dairies	To private people.		
							Date.....
							Signature.....

and pay a sum of not less than $5 nor more than $50, together with the costs of prosecution, in the discretion of such justice or justices, and in default of payment of such penalty and costs, shall be liable to be committed to the common gaol of the county, with hard labour for any period, not exceeding six months, unless the said penalty and the costs of enforcing same be sooner paid.

5. It shall be lawful for the owner or manager of a cheese or butter manufactory to require the owner or custodian of any cow or cows whose milk is being bought for, or supplied or sent to, the manufactory, to submit such cow or cows at his farm, or other premises, where such cows are usually kept, to such milk test, by persons named by such owner or manager, as may be necessary for the said persons to ascertain the quantity and quality of the milk of such cow or cows, on any day, and at such time on any such day as may be appointed by said owner or manager ; and in case the owner or custodian of the cows refuses to so submit them, or obstructs in the execution thereof the persons engaged in making the milk test, or interrupts the test, or interferes in any way with the test, or the application of its result, he shall, on complaint before any justice or justices of the peace, forfeit and pay for every such offence a sum of not less than $10 nor more than $100, in the discretion of the justice or justices of the peace who may hear such complaint, together with the costs of prosecution, if so ordered, and in default of payment of such penalty and costs, shall be liable to be committed, by such convicting justice or justices of the peace, to the common gaol of the county, with hard labour, for any period not exceeding six months, or until said penalty and the costs of enforcing same be sooner paid.

6. It shall be lawful for the owner or manager of any cheese or butter manufactory, who suspects any person of selling, supplying, sending or bringing milk to the manufactory, of any offence under this Act, to enter upon or to appoint some person or persons to enter upon, and such appointed person may enter upon the premises of the suspected person, with or without notice, and take samples of milk from the cow or cows, from which the supposed offender was or had been immediately before then procuring the milk or part of the milk so sold, supplied, sent or brought as aforesaid, and any such suspected person who obstructs or refuses to permit the taking of any such sample shall, on conviction thereof, be liable to a penalty of not less than $10 nor more than $50 with costs of the prosecution, and in default of payment thereof, shall be liable to be imprisoned in the common gaol of the county in which the offence has been committed, for a period not exceeding three months with hard labour.

7. For the purpose of establishing the guilt of any person under the first three sections of this Act, it shall be sufficient *prima facie* evidence to shew that such person, by himself, his servant or agent, sold, supplied, sent or brought, to be manufactured, to any cheese or butter manufactory, milk substantially below the standard of that actually drawn, or by the accused represented as having been drawn, from the same cow or cows within the then previous week, provided the comparison or test is made by means of a lactometer and cream gauge, or by some other adequate means of making the comparison.

8. Any penalty imposed under this Act shall, when recovered, be payable one-half to the informant or complainant and the other half to the treasurer of the local municipality in which the offence has been committed.

The following is similarly suggested for Form of License :

Mr. .....of.....
.....having agreed to conform with the terms of the regulations
(Dairyman, milk vendor or shopkeeper.)
printed herewith (on reverse side) is hereby authorized to engage in the business of dairyman, milk vendor or shopkeeper for the period, included between.....and....., always providing that should any violation of any provision of the Health Acts or regulations be proven, as of the agreement to supply milk of a standard quality, neglect to keep premises in first-class condition as regards cleanliness, water used, etc., as required by said Local Board or its officer, or as regards infectious diseases, said license may at any time be cancelled.

Issued this.....
day of.....

(Signed for Local Board) ....

It is hoped that the suggested regulations be instituted everywhere throughout the Province at the beginning of 1888 ; in order that this, of all sources of food the most important, may be supplied of the best possible quality, to the mutual advantage both of seller and consumer.

We have the honor to be,
Your obedient servants,

FRANCIS RAE, M.D., Chairman,
C. W. COVERNTON, M. D.,
P. H. BRYCE, M.A., M.B., Secretary,
Members of the Committee on Epidemics.

Another matter calling for remark in regard to this, as of other contagious diseases, is the transportation of cases of diphtheria by railways from one place to another. This may be done either by transmission of the sick, or of the bodies of those who have died from the disease. Cases of the first kind occurred during the past year, one of these being from Ingersoll to Hamilton, others from point to point in the northern districts where lumbermen, etc., taken sick were sent to their homes in other parts by rail. The dangers resulting from occurrences of this kind are so well understood by even the general public, that reference to them in detail is quite unnecessary, but the law bearing on the point is often not fully understood or appreciated by even the physician, much less the ordinary citizen. As municipalities having had cases imported, have in indignation taken legal action for the punishment of offenders, I need hardly append here for reference those clauses bearing directly on the point. Hotels and other places of public entertainment are similarly great sources of danger, since persons away from home or in transit utilize them and many persons may thereby be unknowingly exposed to danger. Cases of this kind are constantly occurring, one being reported from Lindsay, where a patient was transferred to that town after having been lodging ill with diphtheria in a Kinmount hotel for a number of days. The physician who allowed this and his transmission to Lindsay was prosecuted. The many references made to the Board regarding this disease, amply attest its general prevalence and the dread in which it is held, as well as the fact that Local Boards are becoming more aroused to the necessity for taking prompt action along the various lines of action necessary for its limitation or suppression.

A point which, owing to the septic character of the disease, has been and we suppose will in some measure continue to be a difficulty in practice and a subject for discussion, is the length of time during which a person who has suffered from the disease is likely to be capable of transmitting it. During the past year several instances have occurred, in which mild cases, apparently free from exudation upon the respiratory mucous membrane have transmitted the disease to children after lengthened periods.

Speaking from personal experience with cases, and judging from the statements made by authorities such as Morell Mackenzie, I am inclined to the opinion that no fixed period can be given within which every case is dangerous and beyond which all are safe. It would appear to be clearly proved that the severity of the disease, the rapidity with which the virus is eliminated from the system, and the return of the respiratory tract to a healthy and non-infective stage, depends so largely on the constitution of the patient, the severity of the onset, the period at which the patient is seen, and the thoroughness of the measures taken not more for the treatment of the local affection than for the elimination of the virus from the system, that what would in practice be a perfectly safe period in one case for the mingling of a patient with other persons, would be highly inadvisable and dangerous in another. Doubtless this might be said with a certain degree of truth

regarding the eruptive fevers, but there appears to us to be in diphtheria so many distinctive points that we cannot do more than fix an arbitrary outside limit, and say that for general purposes this ought to be found perfectly safe. The skilful physician will likewise be the careful practitioner, and it is well that the general legal limit of isolation be fixed for instances where both treatment and nursing are likely to be defective. The necessity there is for your Board being positive in its opinions on these many points, is apparent from the constant references to your Secretary of points in dispute, and further, that he may be placed in a position to express the Board's opinion as expressed by approved regulations on the subject.

It will not seem improper to introduce at this point a further question on the matter of notification and isolation of disease. Assuming that the general law regarding notification is being everywhere enforced by Local Boards, the question of what is the best method by which the Board can secure isolation then comes up. In sparsely settled rural districts, or even in villages where each person has a small lot, the difficulty of isolating a family on the premises does not seem great, but when the parents or children, as in the families of workmen, have to leave their homes, pass through the streets, and be in communication with other persons, it is manifestly very difficult. The question of the advisability of enforcing perfect isolation in such instances comes up not only from the practical standpoint of possibility of enforcing it, but also from the humanitarian standpoint. If in the case of many an ordinary workman with a young family, it means that his work is stopped, his family through the successive sickness of four of five members becomes an object of municipal charity, and the house becomes an infected house for others coming into it. Until now, it is habitual to say, so hopeless is it found to prevent measles and scarlatina from spreading, that even careful townspeople are inclined to say, "They'll have it any way, so what is the use trying to keep them away from it."

Now it is manifest that so far our methods, as carried out in every day practice, practically fail to isolate. At date of writing, measles and whooping-cough exist in the family of a large retail butcher within fifty yards of my house. The family physician is a prominent city doctor. The wife of the butcher not only can be seen almost any time passing through or sitting in the store, walking the street in front of the house, carrying a convalescing child, while two or three more are playing on the boulevard with other children which may be about.

The public school hard by is half empty, so I am informed, through children being at home sick from these diseases, or for fear of them. If the previous conditions are allowed, there does not seem to be any use in closing the public schools. But this is not all. Several days ago I was consulted by a woman, sent to me as a last resort by a city physician, to see whether it was possible by any legal means, to obtain an entrance to the general hospital for the little girl who kept this woman's child while she went out to wash, the girl being ill with measles. She stated that she had sent her own child from the house, so that it would not take the disease, but was forced to pay two dollars a week for its keep. She stated that two other families lived in the same house, and had children, who, she felt sure, would be exposed to the disease. Not only were these the circumstances at home, but she also stated that she did not feel that she could go out or take in washing, for fear of spreading the disease into other houses, and how was she to live she asked?

I have verified as far as possible the details of the case, and it amply illustrates with the the other facts as previously given, the statement that our attempts to control these diseases by any methods now in vogue in Toronto at least, utterly fail. I have become thoroughly convinced that until the city has advanced to the point of making notification both by householder and physician compulsory, under heavy penalties, we shall not greatly succeed; nor will this be of any great use until the method is adopted which is practised in many towns and cities of England, that of removing at once by a city ambulance, the first case in any house with its mother, if necessary, to a "House of Recovery," as isolated hospitals have been called there in many instances. Referring to this subject which is assuming such great practical development in England —much more indeed since the report of 1880-81 (from which I quote) was issued,—I quote regarding the City of Carlisle (pop. 35,000) isolation hospital. "During the typhus

epidemic of 1874, a fever hospital, Crozier Lodge, was established for the use of the city and the adjacent rural sanitary authorities. Smallpox, typhus and diphtheria are there treated in detached blocks, while typhoid, measles, and scarlet-fever are treated in the same building, but in rooms as far as possible separated from each other. During the four years preceding Dr. Thorne Thorne's visit, disease had not spread from one ward to another in a single case. At the time of this visit it is stated that all the nine patients under treatment were children, one being only thirteen months old, and he stated that the difficulties regarding the removal of children, had in Carlisle been practically overcome." Thorne Thorne states :—

"According to Dr. Elliot, this result has mainly been attained owing to the two following circumstances: In the first instance, I note when scarlet fever became somewhat prevalent in the borough in 1878. Dr. Elliot issued to the teachers of the most frequented schools books of blank forms, with a request that if the absence of any child was believed to be due to infectious disease, the form should be filled up with the name and address of the child, together with a statement as to the supposed disease, and then transmitted to him. The result of this step in which the school authorities, willingly co-operated, has been that a large number of cases of early information as to the existence of infectious disease has been obtained and it has been utilized by securing not only the immediate removal, in many instances, of patients to the hospital, but also such partial isolation as can at times be afforded in private dwellings; the enforced absence from school of children from infected houses; together with the cleansing and disinfecting of the affected premises.

"Secondly, as regards the very young children, it is the custom of the hospital authorities always to admit a parent, a relative, or a nurse, together with the patient, if desired, provided a payment of 10s. 6d. per week, inclusive of laundry expenses, etc., is made for such person. Many avail themselves of this privilege, especially those from amongst the better classes, and I found that within four months preceding my visit, four children had been thus accompanied whilst in the hospital. These patients are always placed in private rooms. This arrangement is thus not applicable to the lower classes. . . . Patients can be attended at their own cost by their family physician. In the year ending March 1879, a fairly representative year, the expenses incurred by Carlisle (pop. 35,866) Urban Sanitary Authority were:

Maintaining patients, medical attendance, etc.	£79	10	9
Ambulance	9	7	0
Sundries	4	4	3
	£93	2	0

"The total cases treated of the various infectious diseases during the year was 47."

What preparedness for emergencies means is thus clearly indicated, since while forty-seven patients were treated at a total cost of some $460.00, two cases of small-pox cost in 1885 an Ontario town about $1,100.00.

In order to make an illustrative comparison I propose to quote from the annual report of the city of Hamilton, the city which has under its efficient Medical Health Officer, carried out the Act regarding the notification and isolation of contagious diseases probably more thoroughly than any other in Ontario. I regret that I have not been able to obtain the registration returns for Carlisle for last year, but it will serve our purpose if we take a year at random, viz, 1886.

The following is a comparative table :—

	Smallpox		Measles.		Scarlatina.		Diphtheria.		Whooping cough.		Enteric Fever.		Total.
	Cases reported.	Deaths.	Cases reported.	Deaths.	Cases reported.	Deaths.	Cases reported.	Deaths.	Cases reported.	Deaths.	Cases reported.	Deaths.	
Carlisle: Pop. 52,762	.....	....	.....	3	.....	9	.....	3	.....	21	.....	7	43
Total deaths 1,045.													
Hamilton: Pop. 42,000 1886.	.....	....	3	..	109	2	214	67	.....	....	25	2	74
1887.	.....	....	1277	2	177	2	205	31	.....	....	60	8	43
Total deaths 715.													

We gather from this table several important facts. 1st. That for the five diseases which are reported in Hamilton, and which are taken to hospitals for isolation in Carlisle, that Hamilton with a population in 1886, one-fifth less than Carlisle, had twice as many deaths from the same five diseases. 2nd. That the single disease, whooping-cough, which is not isolated in Carlisle, caused as many deaths as all other zymotics together, whereas in other towns in England, where measles is classed in the same manner as whooping-cough, it causes usually, as many, or more deaths than whooping-cough. 3rd. That diphtheria in an old city, where contaminated soil, etc., ought to exist to a much greater extent than in Ontario, exists to a very small extent; while in Hamilton, it has persisted to a comparatively enormous extent, though 1887 has shown a very decided decrease. 4th. That the mild forms of measles and scarlatina have become in more recent years the rule in Ontario, while probably climatic causes make the type more severe in England. 5th. That notification even where thoroughly carried out has no notable influence in checking outbreaks of disease, unless associated with house inspection and strict isolation in them or elsewhere. 6th. That the house isolation is usually ineffectual to limit the disease to the first case in the house.

So strongly have these many facts impressed themselves upon your Secretary, that he has felt it his duty to inculcate the establishment, wherever the opportunity has presented itself, of an isolation hospital for the reception of cases of contagious diseases, and notably of diphtheria, which is and has been in Ontario and neighbouring states for years a growing pest. Its contagious character is so certainly established as to require no further argument, while the permanency of the special cause when once introduced into a house is beyond all dispute. For instance, in a recent epidemic in Whitby, it was found that 29 scholars in succession in a single class-room of 60 scholars had taken ill with the disease, 13 of whom had succumbed to it. Doubtless, the prime cause was the return to the class-room of children before their throats had become non-infectious, and whose clothing had not been disinfected, and washed in some instances; but granting these as first causes, the particles from their clothing and their exudats would have infected the air of the room into which the dust as is usual was stirred up frequently during sweeping. The town authorities at once supported the idea of an isolation house being fitted up for the reception of first cases of diphtheria, as being at once an economical method for stamping out the disease, their experience during the past year having proved the inutility of any other methods. The authorities in frontier townships, as those in the Nipissing and Haliburton districts, where diphtheria has prevailed even where settlement is sparse, with epidemic virulence have been forced by sad experience to admit that all attempts at house isolation have been a failure. Dr. Currie, of Minden, an old and experienced Medical Health Officer is authority for the statement, that on one concession line every household with the exception of two had had cases of diphtheria, and the two that escaped, did so by non-communication, they not being acquainted with the others. At Haliburton village a house was set apart as an isolation hospital last year, and the outbreak was promptly stamped out. Popular prejudice believed in the persistent character of the virus of diphtheria since, shortly after the patients had convalesced, the house was burnt down under cover of the darkness, thereby illustrating disinfection by fire.

While in the small houses of settlers, as in those of the working-classes in towns and cities, the certainty of the spread of the disease to those liable to take it, has been proven in hundreds of cases, the ease with which, with thorough precautions the disease may be limited to a single ward of a hospital, makes the propriety of having such isolation hospitals everywhere established, very apparent. Toronto has the matter under consideration. Guelph has an infectious wing, while other places have at times made temporary provisions. But all evidence as in London, regarding scarlet fever, shows that to be successful the arrangements must be perfect, and that it is the capture of first cases in an outbreak which insures success. I quote the following from a recent report from the *Sanitary Record*, *re* value of notification and isolation, "Of evidence of the value of notification and hospital isolation, especially in the case of small-pox and typhus in Salford, no fewer than seven separate importations of the former disease and six of the latter have taken place since the Notification Act was passed five years ago, and yet

in no single instance has either of these diseases gained a foothold in Salford ; whereas, in the five preceding years, before notification was compulsory, those diseases invariably spread and caused a serious amount of mischief. In Huddersfield, the procedure adopted by Dr. J. S. Cameron is much the same as in Salford, and the results are eminently satisfactory. The medical profession have loyally carried out the Act, and the public seem also, as at Salford, to be gradually grasping the requirements and advantages of notification. When a case of Scarlet Fever occurs in a non-infected district, the health officers all unite to work backwards to its cause, proceeding on the assumption that it is due to infection. In some cases they get a hint from the friends of the patient that they suspect some of their neighbours of harbouring a concealed case. In one instance, from a hint received, Dr. Cameron sent the Inspector to visit every house in a certain neighbourhood, and was the next day able to send nine cases from two houses, one of them that of a tailor, into hospital."

If it is any satisfaction to our Ontario people, I would state that in our views on the question of isolation hospitals, our authorities and people are greatly in advance in their views on the subject, of the people of most States of the Union. The so-called liberty of the citizen—one could perhaps more correctly express it, the respect for his vote—seems in the eyes of many to be an insuperable obstacle to thorough isolation work. We have much in the working out of details yet before us, but as is evinced by the reports of municipalities herewith published, great advances in many places are abundantly shown.

II.—*DESTRUCTION OF TOWN REFUSE.*

As a practical measure most closely allied to the work of isolation and disinfection which, as has been observed, Local Boards have constantly to deal with, is that of how best to deal with the inevitable accumulations of organic refuse, *e.g.*, the contents of dust-bins, street sweepings and the remains of animals which have died in our towns and cities. In many cases not hitherto crowded. Such disposal has been left to the sense of decency of the persons to whom such refuse pertained ; but except in Toronto and a few other places no regular system of scavenging for the weekly removal of refuse has been instituted. One reason for this has been the difficulty in finding some satisfactory method for disposing of such refuse, which would not create a nuisance at the dumping ground. The filling in of vacant lots with street sweepings is in many cases well enough, but when such deposits contain in addition offal of the filthiest description the good attained is often as doubtful as the procedure is unbecoming and unsanitary.

The cities of Great Britain have, with their increased necessities and in their usual thorough fashion, been dealing with the question of refuse destructors, and have, we may say, practically solved in many instances a very difficult problem. During 1888 the Local Government Board issued instructions to Thomas Codrington, M. Inst. C. E., the engineering inspector of the Board, to report on the different methods of destroying town refuse, and for twelve months Mr. Codrington was engaged in visiting all those towns where such works have been established. For the purpose of supplying to our Local Boards the most recent practical and effective methods of dealing with this all-important question I propose to make copious extracts from this work, which represents the most perfect methods in use at the present time.

Thus says Mr. Codrington : Town refuse, consisting of the contents of ash-pits and dust-bins, market and trade refuse, and the sweepings of paved streets, includes materials which, when sorted out and separated, may yield a small return, or can be utilized in some way. But this part of the refuse has, from various causes, lost much of whatever value it formerly had, and the sanitary objections to the handling of an offensive material for the sake of a small gain are now more generally recognized. It has also become more and more difficult to get rid of that part of the refuse which is absolutely worthless. The practice of filling up pits, quarries and hollows with materials containing offensive and putrescible matters, sometimes afterwards to be built on, is now properly condemned on sanitary grounds, and town authorities, when places for deposit within their own boundaries are no longer available, find neighbouring authorities more and more averse to

allow refuse to be accumulated within their districts. The disposal of town refuse has thus become almost everywhere a troublesome question.

Composition of Town refuse.—In towns in which water-closets are general, the house refuse consists of cinders and ashes mixed with vegetable and animal waste, broken glass and crockery, and the rubbish of all sorts that finds its way into the dust-bin or ash-pit, including often trade refuse and garden refuse in greater or less proportion. In some towns the trade refuse, market garbage and the sweepings of paved streets amount to as much as the house refuse. The trade refuse consists of coarse paper, straw, shavings, broken stoneware and glass, engine ashes, brick rubbish, spoilt fruit, fish and tinned provisions, etc. Market refuse is strictly the animal and vegetable matters removed from markets, but it is often mixed with other refuse, and, generally speaking, the different sorts of town refuse can only be roughly classified.

The annual reports of Mr. G. Weston, the Surveyor of the parish of Paddington, give the constituents of the dust collected from a population of about 112,000, and they may be taken as giving the fair average composition of London town refuse. In 1886, 20,600 tons of "dust" were collected, and the materials, when sorted out, were in the following proportions per 1,000 tons. Other years give much the same results.

London Refuse.	Per 1,000 Tons.
Ashes	526
Breeze (cinders)	288
Soft core (animal and vegetable refuse)	142
Hard core (broken pottery, etc)	29
Coal	1½
Bones	2½
Rags	4¼
Old iron	3½
Old metals (brass, pewter, etc.)	¾
White glass	¾
Black glass	2¼
Tons	1,000

In the dust yards in and around the metropolis the ashes and breeze or cinders are sifted out and sold to brickmakers, and from the residue all that is saleable is picked out, leaving the hard core and soft core to be got rid of, which is generally accomplished by carting or barging or sending it away by railway. Some of the hard core is used for road foundations, and the soft core is sometimes mixed with garbage and street sweepings and sent away as farm manure.

Where the privy-and-ash-pit system, or the pail-system, is in use the finer ashes are mixed with the excreta, either in the closet or subsequently, to make a portable manure, and the contents of the ash pits are generally more or less fouled with excrementitious matter. In Manchester, where pail closets prevail, of 1,000 tons collected from the closets and ash pits in 1880, the constituent parts seem to have been as follows* :—

Manchester Refuse.	Per 1,000 Tons.
Ashes and excreta in pails	645
Dust and cinders	345½
Fish and bones	1½
Dogs, cats, hens, rabbits, etc	½
Boots, rags, hats, paper, etc	½
Vegetable refuse	½
Glass, pottery, bricks, etc	6
Old iron and tin ware	½
Tons	1,000

* Detailed statement of refuse collected for year ending August 31, 1880, by Mr. Henry Whiley.

For every 1,000 tons collected from the closets and ash-pits, about 290 tons of slaughter-house, market and shop refuse and street sweepings were besides collected, the whole being about 250,000 tons.

There is considerable difference in the nature of town refuse under different circumstances. Where coal is cheap a larger proportion of cinders and unburned fuel might be expected, but this is not always the case. People who burn their own coal are generally less wasteful than a higher class population at the mercy of servants, and this is often shown in different quarters of the same town. The superintendents from several large towns who visited with me a dust yard near the west end of London expressed surprise at the large quantity of cinders and coal in the refuse. In Glasgow, on the other hand, there is said to be most cinders in the ashes from the poorer classes of the city. In summer the quantity of vegetable refuse is larger, and there is less of cinders and ashes, so that the refuse is damper than in the winter. Where uncovered ash-pits are allowed, the contents get sodden with wet in rainy weather, especially if they are not cleared frequently.

Weight.—A cubic yard of ordinary refuse weighs from 12¼ to 15 cwt. Shop refuse lighter, sometimes weighing as little as 7¼ cwt. per cubic yard. A load, by which refuse is often reckoned, varies in weight from 15 cwt. to 1½ tons.

Quantity of town refuse.—The quantity of town refuse collected appears to range from 200 to 300 tons per year per 1,000 of population, and of this whatever cannot be utilized has to be got rid of.

Disposal of refuse.—Some towns, whose situation admits of it send their refuse to sea and deposit it in deep water. Liverpool employs two steam hopper barges of 350 tons burden each, and sends yearly about 89,000 tons of refuse, not to be otherwise got rid of, 11 miles outside the bar of the Mersey. Dublin, in 1885, sent about 36,000 tons of unsaleable refuse to sea in a similar manner, and Sunderland and other seaside towns adopt the same course.

Plate I.—At Paddington furnaces similar to those which are shown on Plate I. were erected, and the plan has been followed ever since. The cells or combustion-chambers are arranged in groups of four, back to back ; they are each 8 ft. 6 in. long, 4. ft. 3 in. wide, and 6 ft. 3 in. high from the fire-bars to the crown of the arch. The bottom slopes upwards 1 in 6 from the furnace doors, and consists of a length of 5 feet of fire-bars and 3 feet of hearth, beyond which there is a step or bridge 2 feet high, over which the products of combustion pass into a descending flue to an underground flue leading to the chimney. The furnace is made high to prevent burning the arch, and the fire-brick lining at the sides is independent of the walls. The refuse is fed into an opening over the middle of the furnace, and thus into the hottest part of the fire, without any attempt at previous drying.

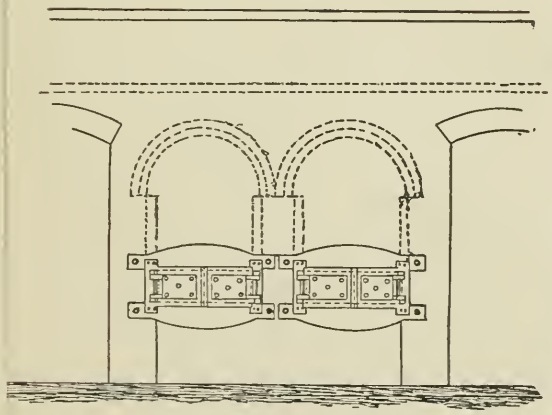
The furnaces shown on Plate I. have been in use at the Water Street depot since 1877. Two blocks of four furnaces were in operation in 1886, and another similar block has lately been added, making in all 12 furnaces. An inclined road leads to a platform level with the top, on to which the refuse is tipped, and which is covered by an iron shed roof.

The material burned consists of what remains of the ash-pit refuse, after the fine ashes and part of the coarser cinders have been separated by screening, the former to be mixed with pail contents, and the latter to be burned under two 40 horse-power Lancashire boilers, and raise steam for driving the machinery. At the Holt Town Works there are four of these furnaces which consume such rubbish as cannot be burned under the boilers (of which there are twelve), with the aid of a little coal, for evaporating and concentrating excreta, and to work the necessary machinery. Great care is taken to feed the furnaces and to remove the clinkers, which are produced by burning with regularity, A table is painted up at each furnace, setting out the times at which it is to be clinkered, at intervals of 1½ hours day and night, and so arranged that two furnaces are clinkered in rotation every quarter of an hour. The furnace men attend to the feeding as well as to

Plate 1.

a. a. Feed Holes.
b b. Furnaces.
c c. Cold Air Inlets.
d. d. Air Spaces
e. e. Fire Doors.
f. f. Flues

Elevation.

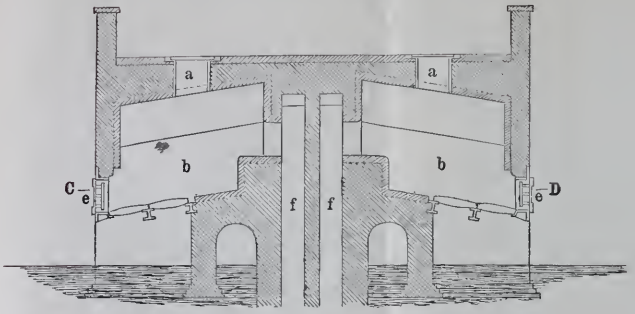


20 Feet

MANCHESTER.
DESTRUCTOR FURNACE,
1877-1887.

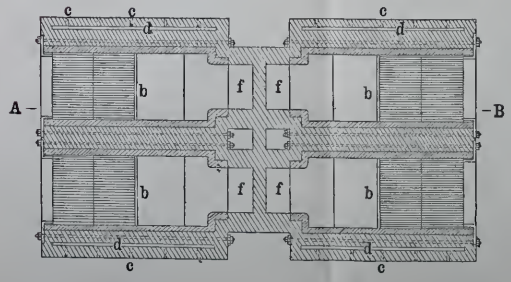
Plate 1.

Section at A.B.

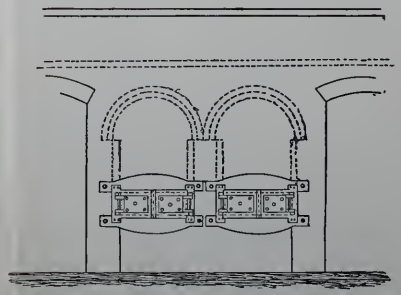


a. a. Feed Holes.
b b. Furnaces.
c c. Cold Air Inlets.
d. d. Air Spaces
e. e. Fire Doors.
f, f. Flues

Plan at C. D.



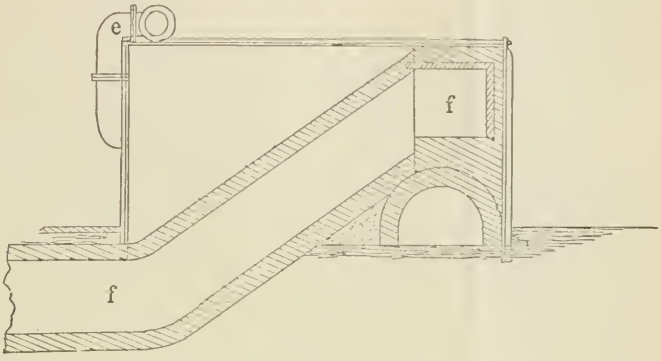
Elevation.



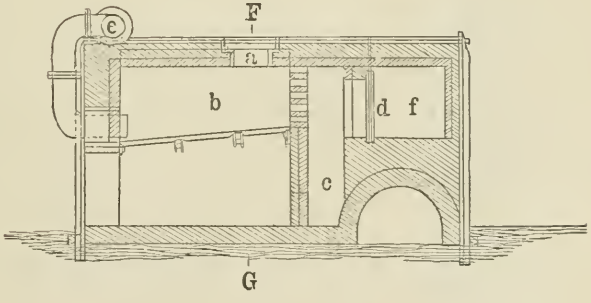
Scale 8 Feet to an Inch.

/HARF.

Section on D. E.



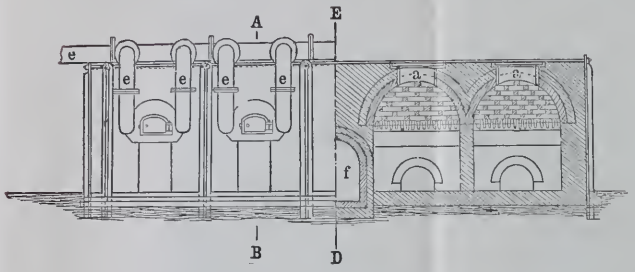
Section on A. B.



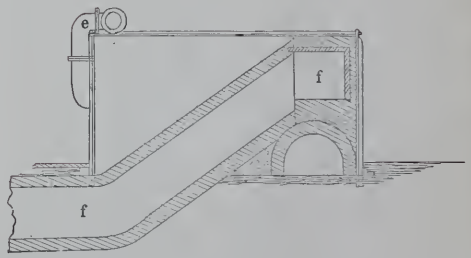
BIRMINGHAM.

MUFFLE FURNACES AT MONTAGUE ST. WHARF.

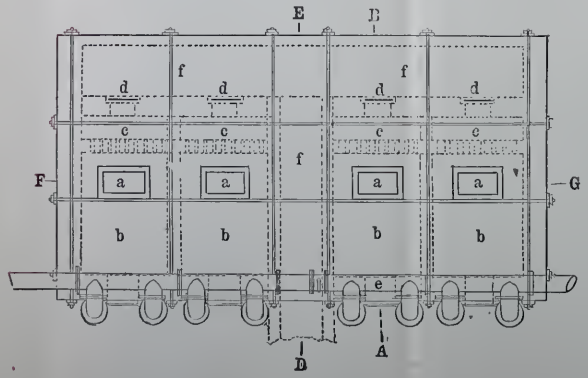
Half Elevation Half Section on F G



Section on D. E

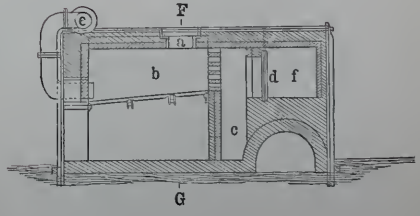


Plan at Top.



a.a. Feed Holes.
b.b. Furnaces
c.c. Dust Chamber
d.d. Dampers.
e. e. Foul Air Main.
f. f. Flues.

Section on A. B.



the clinkering, and both operations go on with the same regularity. For the eight furnaces at Water Street four men are employed by day and four by night, besides a man by day and one by night to assist in feeding. The boiler furnaces are fed and clinkered with the same regularity every 1¼ hour, so that of the eight furnaces and four boiler furnaces in use at Water Street one-half to two-thirds are always burning with hot clear fires, the hot gases from which mix in the main flue with those from the newly charged furnaces and effectually burn them. The temperature in the furnaces was found by Mr. Darley, Smoke Inspector of Leeds, to average 625° Fahr. Very little smoke is emitted from the chimney, which is 138 feet high.

A trial made with the eight furnaces at Water Street showed that they consumed 226 tons of refuse in a week of 132 hours, or 5½ days, being at the rate of 28½ tons per furnace per week, or 5 tons 2 cwt. in 24 hours. the great-area being 21¼ square feet. The clinker and ashes produced were nearly one-half by weight of the material burned. The clinker is used for making mortar, for which purpose there are five mortar mills with edge runners, and the fine dust from the flues is mixed with carbolic acid and made into disinfecting powder.

Birmingham.—At Birmingham a four-cell Fryer's Destructor was erected at the Shadwell Street wharf in 1877, with concretors for concentrating excreta and a carbonizer for vegetable refuse. In consequence of complaints from the General Hospital, which is only separated fron the works by a canal, the use, first of the concretors, then of the carbonizer, and finally the destructor, was discontinued. Subsequently, alterations were made in the furnaces of the destructor, and feed-openings were made in the middle over the upper end of the fire-grate. So altered, the furnaces are now worked as much as possible by night, and burn 5,600 tons of refuse a year, after the fine ashes have been sifted out for mixing with excreta for manure, without complaint from the hospital.

Plate II.—At the Montague Street wharf the contents of the ash-tubs are carried by an elevator to a rotating screen, by which the fine ashes are separated and passed through a hopper and pipe to a pug-mill, where they are mixed with excreta from the pails. The mixture is delivered into barges and sold for manure. The greater part of the cinders and the rubbish is burned under-steam boilers for drying excreta, and the residue, including the more offensive refuse, is burned in furnaces designed by Mr. J. Wilkinson, and shown in Plate II. They are four in number, each 7 ft. 4 in. long and 5 ft. 4 in. wide ; the fire-grate occupies the whole of the bottom, and rises with an inclination of 1 in 10 towards the back. The covering arch is 3 ft. 3 in. high at the fire-door and has a feed-hole in the top towards the back of the furnace. The latter consists of a pigeon-holed wall of fire-brick 9 inches thick, presenting a large headed surface to the vapours as they pass off. Beyond is a dust chamber 1 ft. 6 in. wide, and extending to the level of the ground, with an opening into the ash-pit, closed by loose bricks, which are removed when the dust is cleared out. An opening, fitted with a damper, leads from the dust-chamber to the flue, which is level with the furnace, and is connected with the chimney by a descending flue.

The gases from the drying excreta are extracted by blowers and passed into the furnaces through pipes, entering on each side of the fire-door. Gases which had a most offensive smell on entering the furnace, when taken from the base of the chimney were found to be odorless.

The furnaces are fed principally from the top, though sometimes by the fire-door as well. The fire is pushed to one side of the furnace and to the back, exposing the clinker, which is lifted from the fire-bars and raked out. The fire is then spread evenly, and a fresh charge is thrown in upon it. The furnaces are banked on Saturday afternoon and left till midnight on Sunday, thus burning continously about 132 hours a week. They are said to be capable each of burning six tons of ordinary refuse in 12 hours.

The chimney is 260 feet high, serving for 15 boilers as well as the four furnaces. A little smoke of a light colour is all that is visible at the chimney-top. The clinker obtained from the burned refuse is used for making mortar, concrete paving, coping, etc., as well as for street foundations.

The cost of the furnaces was about £120 each, and that of the chimney about £1,000. One man by day and one by night work the four furnaces, and the labour costs about £2 12*s.* per week.

Plate III.—The furnaces at the Crawford Street Works, which are shown on Plate III., are two in number, each 12 feet wide, the whole width being occupied by the fire-grate, which is 7 feet long, and rises towards the back with an inclination of 1 in 7. At the front of the furnace the heighth of the covering arch is 4 ft. 3 in. above the fire-bars. There are two furnace doors, 3 feet wide, to each furnace, and two outlets, each 4 feet wide, sloping upwards from the back of the fire-grate, and then turning downwards to the main flue. The ash-pits are closed by doors, and the foul air is exhausted from the excreta-tank and mixing chamber by a fan, and forced into the back of the ash-pit and through the fire. The two furnaces form a block 28 ft. 6 in. by 15 ft. 8 in. and 10 ft. high, the top forming the bottom of a pit in the upper floor of the building, about 6 feet deep, into which the rubbish to be burned is delivered, and is fed into the furnaces through two openings over the upper end of the fire-grates. A large charge is put in when the fire is clear, and the feed-hole is closed by a cover. The clinker is withdrawn every two hours. The furnaces are banked up at about mid-day, by which time the rubbish collected in the previous night is nearly all burned, and 11 p. m., when the refuse begins again to arrive, the fires are started with old baskets, etc. The quantity of refuse burned at the Crawford Street Works in 1886 was about 11,000 tons, an average of 210 tons per week, but in November as much as 396 tons per week were burned. About one-fourth by weight is left as clinker, which is conveyed to tips by rail.

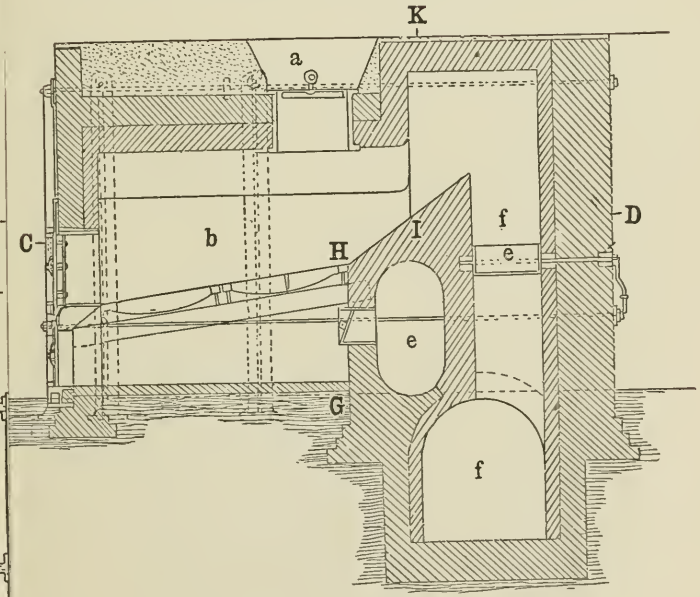
At St. Rollox Works, constructed earlier, there are five furnaces of a similar character, all 6 ft. from back to front, but varying in width from 6 ft. to 12 ft. About the same quantity of refuse is burned as at Crawford Street. The chimney is 50 yards high, that at the Crawford Street Works being 80 yards. The main flues are cleared every two months of a fine dust, which at Crawford Street amounts to about 6 cubic yards. There are no complaints of dust or smell from the chimneys, which both emitted a light greenish yellow smoke. In the main flue at Crawford Street a grid with $\frac{3}{4}$ inch spaces, kept cold by water passing through it, has been fixed to catch charred paper, which at first escaped from the chimney-top.

Fryer's Destructor.—Plate IV.—Fryer's destructor, the general arrangement of which was patented by Mr. Alfred Fryer, of the firm of Manlove, Alliott and Fryer, in 1877, is shown on Plate IV. It consists of a group of furnaces or cells, each internally about 9 ft. long and 5 ft. wide, covered by a fire-brick arch 3 ft. 6 in. high. The furnace has an inclination of 1 in 3 from back to front, and the bottom consists of a fire-brick hearth for the upper 4 ft. and a fire-grate for the lower 5 ft. On one side of the furnace the upper end of the hearth is prolonged with a steeper slope under an opening for the admission of the refuse from above, and on the other side is a passage whereby the products of combustion pass downwards to the main flue, a wall in the middle line of the furnace dividing the feed-hole from the flue-opening. The main flue is under the hearth, and in the later destructors, is made of large size to form a dust-chamber. The cells are perferably placed back to back with the feed-holes adjoining, there being only one opening above for the two cells. A somewhat larger opening, fitted with a cover, is provided over the middle of one or more of the furnaces through which infected bedding, condemned meat, etc., can be consigned to the hottest part of the fire. This opening might with advantage be made larger, as it is difficult to get in a mattress without cutting it up. There are cast-iron furnace mouths, with fire-doors at the front of the furnace. In the earlier destructors there were two mouths to each cell, but now one mouth, 5 ft. wide, with a door hinged at the top to open upwards, with balance weights, is preferred. The furnaces and flues are lined throughout with fire-brick, and corner pieces, stays, and tie-rods hold the brickwork together. A furnace or cell with the enclosing brickwork forms a rectangular mass about 12 ft. long, 7 ft. wide, and 12 ft high, a group of four cells back to back measuring about 14 ft. by 24 ft., and a group of six cells about 21 ft. by 24 ft. A

Plate 3

a.a. Feed Holes.
b.b. Furnace.
c.c. Damper.
d. Air Space
e.e. Foul Air Flue.
f.f. Flues.

Cross Section on A, B.

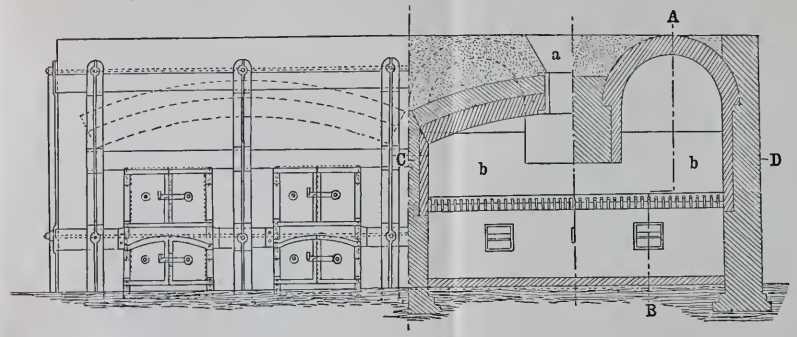


GLASGOW.
—CRAWFORD ST. WORKS.—
RUBBISH FURNACE.

Plate 3

Elevation

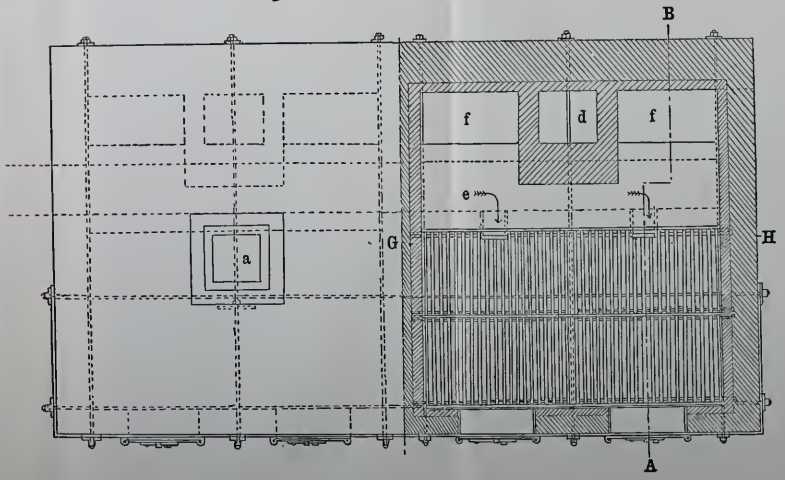
Section on G H. I K.



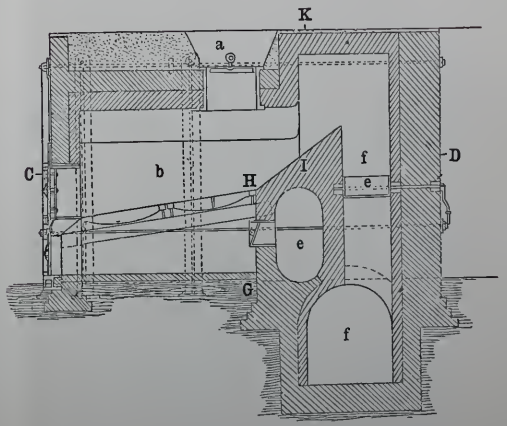
a.a. Feed Holes,
b.b. Furnace.
c.c. Damper.
d. Air Space
e.e. Foul Air Flue.
f.f. Flues.

Plan at Top

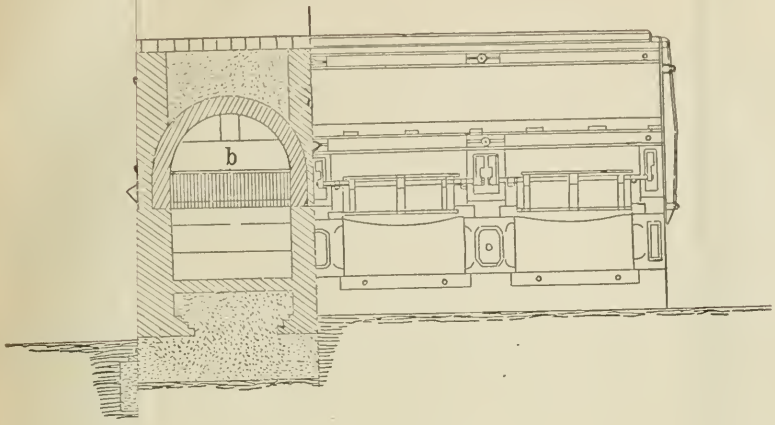
Plan at C, D.



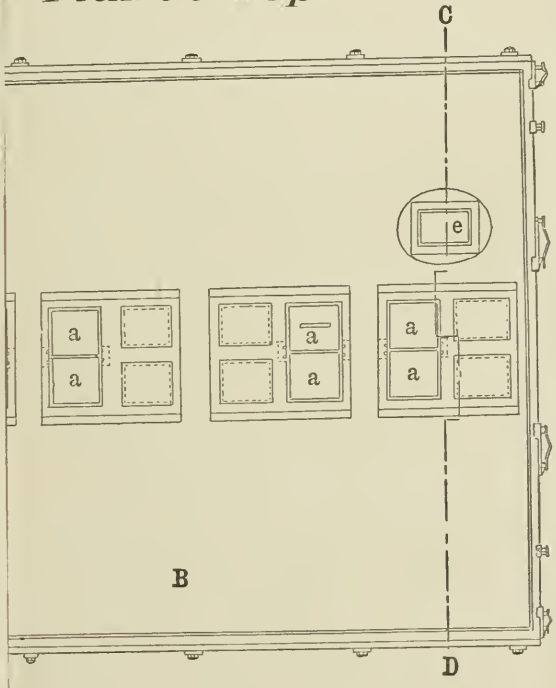
Cross Section on A, B.



on A B. Elevation.

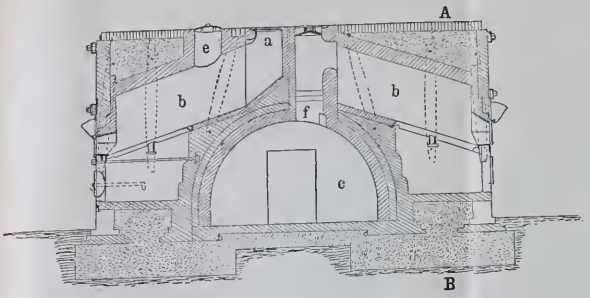


Plan at Top.

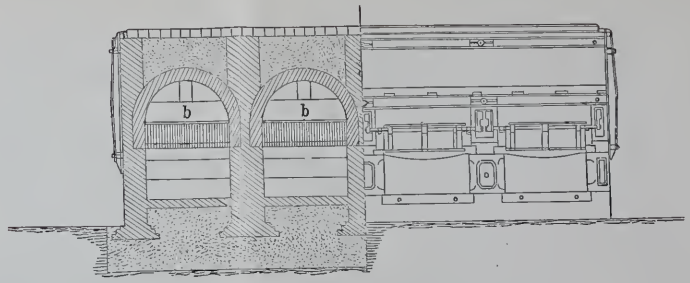


FRYER'S DESTRUCTOR.

Section on C D

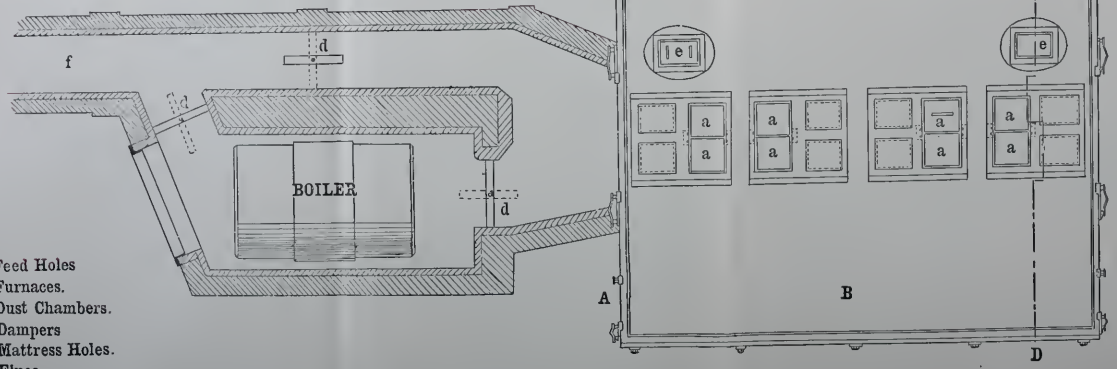


Section on A B. Elevation.



Plan at Top.

Sectional Plan of Flues.



a a Feed Holes
b b Furnaces.
c c Dust Chambers.
d d Dampers
e e Mattress Holes.
f f Flues.

road is generally made by which the refuse is carted to a platform 2 ft. 6 in. or 3 ft. above the destructor, and another leading to the ash-pit floor for the removal of the unburned portion of the refuse. In a few cases the refuse is raised to the top of the destructor by a lift or elevator, but a road for carts is far better.

The feed-openings at the top of the destructor are kept filled with refuse, which slides forward on the sloping hearth, and is partially dried by the heat given out by the burning material, and reflected from the reverberatory arch. It is helped forward by raking till it reaches the fire-grate, when everything combustible is burned to a hard clinker, which is withdrawn from time to time through the furnace doors.

The hot gases, or a portion of them, are usually passed through a multitubular boiler to make steam to supply an engine to work mortar-mills and other machinery. The chimney shaft is usually at least 120 ft. high, and sometimes as much as 180 ft., to create a keen draught and carry off all offensive fumes, and the lower part is generally furnished with a fire-brick lining, with an air space for a height of 30 to 70 feet.

The clinker is removed about every two hours. It is lifted from the fire bars and raised above the burning cinders with suitable tools, and raked out of the furnace with any other thoroughly burned refuse. The fire is then spread evenly over the grate, and dry refuse is raked forward fron the back sufficient to cover the fire evenly with a thickness of about four inches. When the refuse is wet, a less thickness is enough. If too much refuse be drawn down at one time, the fire will become dead and black. At intervals of about twenty minutes, another thin layer of refuse may be raked forward and spread over the fire, but it is best to leave the fire undisturbed for half an hour before clinkering. The fire-bars must always be kept covered, but the fire should not be too thick ; 7 to 9 in. is quite enough to ensure a clear bright fire. There should be enough refuse over the feed hopper to prevent air entering, but not so much as to prevent the proper charging of the cell, and there should be always sufficient refuse on the drying hearth ready to be raked forward for burning.

Leeds.—Destructors of this sort have been in continuous operation at Leeds since the beginning of 1878, when a six-cell destructor was completed at Burmantofts, 1½ miles from the centre of the town, to the north-east. In the following year another destructor of six cells was erected at Armley Road, about a mile to the west of the town hall. In 1882 four more cells were added to each destructor, and in 1887 two more cells were added at Armley Road. In both destructors the cells are arranged back to back over a main flue which, when the additional cells were added, was widened to 10 feet. The main flue branches into a bye-pass and a flue for heating a boiler, and the passage to one or the other is regulated by dampers. At Burmantofts the gases heat a multitubular boiler 10 ft. long and 6 ft. in diameter, which supplies steam to an engine having a 12 in. cylinder, and 2 ft. stroke, which drives two mortar mills, with pans 8 ft. in diameter, and 27 cwt. rollers. These are on the ground floor. An incline of 1 in 14, laid with cast-iron tram-plates, leads to the upper floor, which is 15 ft. above lower floor, and 3 ft. above the top of the destructor. The lower floor is open on two sides, but the upper floor is closed in and roofed over. The chimney is 150 ft. high and 5 ft. in internal diameter ; it was built when the additional cells were added, the old colliery chimney used before being too small.

At Armley Road the chimney is 120 feet high and 6 feet internal diameter, and the building is of iron, 70 feet by 50 feet, supported on iron columns. A floor or platform of brick arching on plate-iron girders is reached by a road ascending 1 in 12, and another road leads downwards to the firing floor. The boiler is 9 ft. 2 in. long and 8 ft. in diameter, and the engine has a 14-inch cylinder and 30-inch stroke, and drives two mortar mills 9 feet in diameter.

The clinker from the furnaces is estimated at about one-fourth by weight of the refuse burned, but some tests by Mr. Newhouse, the superintendent of the Sanitary Department, showed the proportion of clinker and ashes to be one-third. Mortar is made of as much of it as there is a sale for, and the rest is used for ballast, street foundations, etc. The old iron and tin which is picked out and sold unburned fetches £1 a ton on

account of the solder, but the greater part goes through the destructors, and is sold for about 5*s.* a ton.

The total cost of the destructors, buildings, offices, machinery, etc., as stated in a report from the Chairman of the Sanitary Committee and the borough engineer, has been—

	£	*s.*	*d.*
Burmantofts destructor, 10 cells	7,282	1	1
Armley Road destructor, 10 cells	7,466	9	10

This includes the cost of a carbonizer no longer used, and other things not strictly appertaining to the destructors which it is impossible to separate.

The labour required at each destructor station is,

1 foreman, who acts as engine driver.
6 furnace-men, working three in day and three in night shifts.
1 labourer attending to mortar mills.

Considerable care is now taken with the charging and clinkering of the furnaces. At first all the cells were clinkered and charged one after the other every 2½ hours, as quickly as the men chose to do it, but now a pair of cells are charged every 25 minutes regularly. The result is that the temperature in the main flue is more uniform, and there is less smoke from the chimney.

The fires are kept continuously alight except when drawn for repairs; the furnaces are filled up and banked about 1 p.m. on Saturday, and the damper is closed at 7 p.m. till 12 on Sunday night. The amount burned in the year ending 31st August, 1886, in the 20 cells was 35,248 tons, giving an average of 34 tons per cell per week, consisting of refuse from ash-pits with trade and market refuse. Mr. J. Newhouse furnished the following list of other things destroyed during the same period :—

Eleven cows, 3 calves, 17 sheep, 4 goats, 298 pigs, 5 turkeys, 2 carcases of beef, 28 quarters of beef, 9 cwt. of pork, 10 cwt. of pickled tongues, 12 cwt. of herrings, 218 cwt. of shell fish, 1 cwt. of sugar, 285 dogs, 109 cats, 13 foxes. 1 sea serpent, 147 mattresses, beds, pillows and bolsters; 7 blankets, quilts and sheets, 36 pieces of carpet, 7 hearth rugs and mats, 33 pieces of wearing apparel, 1 bedstead, 1 sofa, 1 chair and 1 bundle of rags.

This is not an unusual year's work, and the destruction of diseased animals and condemned food is constantly effected without offence. On one occasion on an outbreak of swine fever 200 pigs were burned, and in one afternoon 50 were destroyed, three at once in a cell, only a faint odour of roast pork being perceptible on a hill to leeward of the chimney.

The working cost for the year ending 31st August, 1886, according to a statement furnished me by Mr. Newhouse, is as follows :—

——	Burmantofts.			Armley Road.			Total.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Wages	572	1	2	590	7	0	1,162	8	2
Coal, oil, tallow, water, gas, etc	77	0	9	103	19	6	181	0	3
Implements and repairs	67	8	4	159	19	7*	227	7	11
Rates, taxes and insurance	110	12	7	42	7	3	152	19	10
Lime (for mortar making)	23	18	10	54	2	5	78	1	3
	851	1	8	950	15	9	1,801	17	5
Less mortar and iron sold	165	18	8	229	1	2	394	19	10
	685	3	0	721	14	7	1,406	17	7

* Exclusive of new-fire bars (Galleys' patent).

The capital cost has been, as already stated, £7,282 1*s.* 1*d.* at Burmantofts and £7,466 9*s.* 10*d.* at Armley Road. The loan is to be repaid by equal annual instalments of principal and interest in 60 years at 3½ per cent., which amount to—

	£	*s.*	*d.*
Burmantofts	291	17	9
Armley Road	299	6	4
Total	591	4	1

for repayment of capital and interest.

The right to use the patent having been purchased for £2,000., £100 a year for each destructor, appears to be a fair proportion to allow for royalty. The total annual cost of the destructors is therefore—

——	Burmantofts.			Armley Road.			Total.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Working cost	685	3	0	721	14	7	1,406	17	7
Repayment of capital	291	17	9	299	6	4	591	4	1
Royalty	100	0	0	100	0	0	200	0	0
	1,077	0	9	1,121	0	11	2,198	1	8

Beehive Destructor.—A furnace, called from its shape the "Beehive destructor," the invention of Mr. Stafford, Assoc. M. Inst. C. E., borough engineer of Burnley, has been tried at Burnley, Bradford, Batley, Leicester and Richmond. It is circular, 6 ft. in diameter, with two fire-grates, one over the other, and a hearth covered with water below. The lower furnace is lighted up with coal and coke, and when it is well alight, the refuse to be burned is fed into the upper furnace. At Burnley it is still in use, burning shop and market refuse at night three times a week. About 3 cwt. of coal and coke is used to start with, and about 2 tons of shop refuse is burned in about 5 hours twice in the week, and 4½ tons of shop and market refuse on Saturday night in about 12 hours. The refuse appeared to be light and easily burned when dry, and the cinder and ashes proved to be a very small proportion of the quantity burned. At other places similar furnaces have not been successful. At Bradford, one was abandoned after three months' trial on account of the cost of the fuel required for working it. At Batley, where a trial was made with about 52 tons of ordinary ash-pit and privy refuse, 6 tons 18 cwt. of coal and coke were used, and the cost of burning was 2*s.* 9*d.* per ton, of which 1*s.* 2½*d.* per ton was for fuel. The chimney was 120 feet nigh, with a good draught, but the refuse was not thoroughly burned, and very little clinker was produced. The destructor was abandoned after a fortnight's trial. At Leicester, five trials were made by Mr. Gordon, M. Inst. C. E., the borough engineer, in September and October, 1884, in which 100½ tons of ordinary ash-pit refuse were burned with the aid of 7¼ tons of coal and coke in varying proportions. The ashes remaining weighed 56½ tons, and the cost of burning, including coal, coke, and labour, was 2*s.* 2*d.* per ton of refuse. The chimney with which the destructor was connected was 160 feet high with a good draught. The furnace was considered a failure and abandoned. At Richmond (Surrey), two cells and a chimney 90 ft. high were erected in 1884. Complaints were at once made of smoke, effluvia, dust, and partially burned paper and other refuse matter escaping from the chimney and falling in the neighborhood. Grids were fixed in the flue and in the chimney, and baffle plates were fixed to throw the products of combustion downwards into running water in the chimney base. By these means the draught was checked, so that the quantity burned was reduced by nearly one-third, while the nuisance from the dust and effluvia was not abated, though the unconsumed particles of paper and refuse were smaller in size. Litigation ensued, and the use of the apparatus was stopped, not, however, before the original furnace had been re-built in a modified form, and a smoke-consuming chamber with two fire-grates in

which breeze was burned, had been added by Mr. Brooke, Assoc. M. Inst. C. E., the surveyor, with some promise of a better result.

At Batley, Leicester, and Richmond the bars of the upper fire-grates very quickly burned away.

Dust from Chimneys.—Although experience has shown that town refuse can be effectually burned in destructors and other furnaces without causing nuisance or offence at or about the works themselves, there are two points about which complaints have arisen. One is of a fine dust, and sometimes of charred paper, proceeding from the chimney and falling at some little distance off. The quantity of dust produced from the burning refuse appears to vary a good deal in different places, and the amount of it which is carried into the flue and up the chimney depends to a considerable extent upon the care with which the excessive draught in the high chimney is regulated by dampers. At one destructor about 2 cubic yards per cell per week was said to be removed from the dust chamber, but a more usual quantity is $\frac{1}{4}$ to $\frac{1}{2}$ cubic yard. A sample of flue dust from the Armley Road destructor was found on incineration by Mr. F. N. Sutton, to consist of 93·6 per cent. of mineral matter, and 6·2 of organic matter, the rest being moisture imbibed in transit. The mineral matter under the microscope appears to be ash and glassy slag, with many fragments of what seems to be filaments of glass, probably melted in the furnaces, and drawn out by the draught. It is not likely that in all flue-dust the organic matter is so completely burned as is this sample.

In the destructors more recently erected the main flue has been enlarged beneath the cells to form a chamber in which, the velocity being checked, the dust may fall. Instead of a flue 4 ft. wide, as in the earlier destructors, there is now a chamber 10 ft. wide and 8 ft. high, and with good effect. Sunk channels have been formed on each side of the bottom of the chamber to collect the dust, and low cross walls for the same purpose have been tried. The latter must be built of dry bricks in the middle to be pulled down when the flue requires cleaning, or preferably, there may be, as at Salford, a removable iron plate to close an opening wide enough for a wheelbarrow. Frequent removal of the dust is very necessary to prevent its being carried up the chimney. The large particles, such as charred paper, have been arrested by wirework screens or grids. At Derby, charred paper was stopped by two baffles or bridges in the flue a short distance apart, one at the bottom and the other at the top. The best preventatives, however, appear to be large dust chambers, proper regulation of the draught, and frequent removal of the dust.

Smell from Chimneys.—The other ground of complaint is an offensive smell from the chimney. In some instances it is true that the smell complained of did not proceed from the furnaces at all, but it cannot be denied that the smoke and vapour from furnaces burning town refuse have often an offensive smell which, under certain conditions of the atmosphere, can be recognised at some distance on the leeward side of the chimney.

Dr. Odling, in a report to the Bradford corporation, rightly, I think, attributes it to empyreumatic vapours given off when the refuse begins to burn before it reaches the hot fire, and is undergoing destructive distillation or frizzling. When, as in the Manchester and Birmingham furnaces, the fresh charge of damp refuse is thrown directly into the hot fire, this action must go on, and the arrangement in Fryer's destructor for feeding from the back of the furnace, while partially drying the refuse, affords a direct passage into the flue for vapours arising in the cooler part of the furnace.

The products of combustion must of course vary with the nature of the material burned, but a good deal more depends upon the rate at which it is burned, and the care and regularity with which the furnaces are fed and clinkered. Smoke and imperfect combustion, follow any attempt to overload the furnaces, and this is especially the case when refuse is unusually wet. Where there are many cells or furnaces, by careful and systematic firing and clinkering the gases from the recently charged and cooler fires may be made to mingle in the dust chamber or flue with those from the hotter fires, and a temperature may be obtained high enough to destroy offensive vapours that escape from the furnaces. The care with which firing and clinkering is regulated at Manchester and Leeds has been mentioned, and it might be followed with advantage in other places.

The Fume Cremator.—To effect the combustion of offensive vapours it has been suggested that the gases from the furnaces should be passed through or over another fire. The destruction of smell by passing the vapours from the excreta dryers over the fires of the Birmingham refuse furnaces has been mentioned, and it is still more strikingly exemplified at the Rochdale works, where there is a special furnace for the purpose, through which the vapours from the drying cylinders are forced by a blower after having been passed through condensers. The furnace devised by Mr. Charles Jones in connection with the Ealing destructor has been described. As patented, the fume cremator differs from that erected at Ealing in being circular in cross section, and one of this form was added to the Blackburn destructor. The fire-grate is broken up into six strips 9 in. wide and 2 ft. long, separated by 9 in. of hearth, and the actual grate area is only 9 sq. ft. compared with 20 sq. ft. at Ealing for the same number of cells. The fire occupies a width of 2 ft. at the bottom of a cylindrical furnace 3 ft. 6 in. in diameter, instead of a width of 4 ft. in a furnace 3 ft. high. The cremator is badly placed, and there are unfortunate throttlings of the draught. The effect of the cremator was, it is stated, to reduce the draught by one-fifth, and the quantity of refuse burned from 108 tons to 77 tons per week, while the consumption of coke was 8 tons per week, and the cost of working was increased at the rate of £200 a year, which included an attendant at 30*s.* a week, and the coke at 5*s.* 10*d.* per ton. Its use has been discontinued on account of the expense of working.

At Bournemouth the cylindrical form has been repeated, but there is no throttling of the draught. It is proposed to burn cinders screened from the refuse instead of coke breeze in the cremator.

A separate furnace in which the vapours are burned is likewise a feature in the Nelson destroyer, and appears to effectually answer the purpose of consuming the smoke and vapours.

Washing the gases by water spray has been proposed as a means of depriving them both of the fine dust and the offensive vapours. It would, by lowering the temperature, seriously diminish the draught unless the latter were maintained by other means. A closed ash-pit, with a forced draught by means of a blower or a fan, as in use at Glasgow, or a steam jet or an exhaust fan in connection with the chimney might perhaps be applied to maintain a draught sufficient for proper combustion. In the destructors at present in work there is generally sufficient surplus heating power to provide a forced draught, but any power applied to that purpose would, of course, be no longer available for other more remunerative work.

Experiments and Observations.—Temperatures.—It appeared to be desirable to get further insight into the process of combustion in furnaces burning town refuse, and I am indebted to Mr. A. E. Fletcher, the Chief Inspector under the Alkali Acts, for the valuable help of his assistant, Mr. F. N. Sutton, in making experiments for that purpose. Observations were made on the temperatures and composition of the products of combustion, and the speed at which they pass off, at White Chapel, Ealing, and Bradford. The temperatures were taken with Siemen's water pyrometer, those of the different cells being taken in the flue leading downwards to the dust chamber, as giving a fairer result than any position within the cell itself, where high temperatures are to be expected at points when combustion is active. As might be expected they were found to vary a good deal, according to the condition of the fires At the White Chapel destructor the temperatures on July 6th, 1887, ranged from 180° to 1,000° Fahr., the average of the eight cells being 490°. The highest temperature observed was about 20 minutes after the fire had been clinkered, and the lowest when a charge, largely composed of damp vegetable refuse, had recently been drawn down onto the fire. A dead fire ready to be clinkered gave off gases at 290°–300°. Some cold air was admitted into the flue while the pyrometer heater was in it, so that something under the usual temperature may have been recorded. Any error from this source was avoided in subsequent experiments. Three trials of the temperature in the main flue between the destructor and the chimney shaft, at about 40 feet from the former, gave 410°, 540°, and 410° at intervals of about 20 minutes. The material being burned, owing to the season of the year, contained a very large portion of green vegetable refuse, and but little cinders and ashes, and was probably as bad a sample

for burning as ever comes to the destructor. The feeding and clinkering of the furnaces was being carried on as usual, one furnace being clinkered every 10 minutes, until all were clinkered, and there being then an interval of half an hour, when the process was repeated; the furnaces being taken, not in rotation, but in the order in which they needed clinkering. It may, perhaps, be doubted if the lower temperatures at which the burnt gases escaped from the cells are sufficient for the perfect destruction of contagia and virus, but the mean temperature reached in the dust chamber, where gases from all the cells mingle, would be enough to deprive the small particles passing off of any infectious properties they might possess.

At the Ealing destructor, burning the mixture of sewage, sludge and refuse already described, and house-refuse, in about equal proportions, the temperatures observed in the flues leading from three cells were 855°, 520°, and 520°. The fourth flue could not be conveniently got at, but, judging from the fire, the temperature was probably about the same as in the second and third. The temperature of the gases after leaving the destructor and before entering the cremator, was, when the fires were all dead and requiring clinkering, 445°; at other times temperatures of 565° and 625° were observed; and with three fires in good condition, and the fouth moderately good, the temperature was 700°

No great increase in the temperature of the gases, after passing through the fume cremator, was observed on this occasion, and the heat in the cremator, taken at about eight inches above the coke fire, did not exceed 700°. At a later visit, when the second analysis given in the tables below was taken, there was a hotter fire in the cremator, and the gases passing from the destructor at 675° had a temperature of 880° on leaving the cremator, the heat three inches above the coke fire in the latter being 970°. The mixture of sludge and refuse was then being burned without any other refuse.

At Bradford, the temperatures of the gases from the six cells of one block of the destructor, ranged from 270° to 730°, the mean of the whole being 480°. The observations were all made soon after the fires had been clinkered and fed, the lowest result being from a cell which was fed while the heater was in the flue, with wet midden and and green vegetable refuse. Observations taken in the main flue leading from the six cells to the chimney an hour before and three hours after gave a temperature of 415°.

At Armley Road, Leeds, observations were made in the main flue between the destructor and the boiler, to compare the readings of the Siemens' water pyrometer with those of a pyrometer by Casartelli, composed of tubes of different metals. The Siemens' instrument gave temperatures of 580° and 650°, when the Casartelli pyrometer indicated 570° and 670° not far off, a sufficiently close agreement. Pyrometers are now fitted in the main flues of both the Leeds destructors, and registers are kept of their readings, which cannot fail to promote careful clinkering and feeding. The average heat for the day at the Armley destructor appears from the register to be from 530° to 540°, ranging from 350° or 400° on Monday mornings (the fires having been banked on Sunday) to 650° or 670° in the afternoons. These good results are, no doubt, due as much to the regularity with which the cells of the destructor are fed and clinkered as to the venetian fire-bars with which the furnaces are fitted.

The foregoing observations appear to show that the temperature generally reached in refuse furnaces has been exaggerated.

Volume of air entering furnaces.—To ascertain the volume of the gases passing off, and thence to deduce the proportion of the air entering the furnaces to the refuse burned, it was necessary to measure the speed of the gases in the main flue or chimney. This was done by Mr. Fletcher's anemometer, and also by a ready method previously adopted by me, whereby the time taken by a puff of fine dust in passing up the chimney of known height was measured. The results obtained by the two methods agreed fairly well, giving the velocities of the hot gases as from 10 to 15 feet per second. The speed and temperature of the hot gases being ascertained, and the area of the flue being known, after allowing for the aqueous vapour passing off, the volume of air entering the furnaces could be deduced with tolerable accuracy. The quantity of refuse being burned could only be estimated, by taking the daily average quantity, and this renders the results obtained only approximately accurate. Without entering into details it is sufficient to

state that the air entering the furnaces appeard to be about 8½ tons to a ton of refuse burned at the Armley Road destructor, Leeds, about 9¼ tons of air to a ton of refuse at White Chapel, and about 13 tons of air to a ton of refuse at Bradford.

It is instructive to compare these results with the proportion of air to fuel of a better quality.

Proportion of moisture in refuse.—For the complete conversion of a ton of carbon into carbonic acid, the oxygen of 12·2 tons of air is required. In practice at least one-half more is necessary, and in ordinary boiler-furnaces nearly double this quantity of air is used for perfect combustion of coal. The air entering a furnace burning town refuse appears from the above experiments to be less than, or not much to exceed, the theoretical quantity required to convert the refuse into carbonic acid, supposing it to be all carbon ; or about one-third to one-half what is required for the complete combustion of coal containing about 80 per cent. of carbon in an ordinary boiler furnace. But we know that the refuse contains comparatively little combustible matter. Instead of leaving 4 to 8 per cent. of cinder and ashes as coal does, it leaves 25 to 33 per cent., and it contains besides a large proportion of moisture. To get a definite idea of what the proportion of the latter is, some experiments have been made for me by Mr. Cox, Mr. Newhouse, and Mr. La Riviere. Vessels containing samples of refuse were placed in the main flue or chimney base, and thoroughly dried with proper precautions, and the loss of weight was ascertained. The trials were all made in October 1887, and results are shown in following table :—

Description of Refuse.	Loss of Water in Drying.	——
Bradford.—Average ash-pit refuse, neither very wet nor very dry.	47 per cent..... ...	Mean of 10 trials with 324 lbs. of refuse. Material charred.
Leeds.—Dry ashes, privy-midden refuse, vegetable and animal matter, as taken from the platform.	39 "	Mean of two trials with 124½ lbs. of refuse.
Leeds.—Dry ash-pit refuse.....	31 "	Trial on 60 lbs.
Leeds.—Privy-midden refuse.....	33 "	Trial on 60 lbs.
White Chapel. —Average refuse.....	29½ "	Mean of 6 trials on 101 lbs. of refuse.
Vegetable refuse.—Bradford.....	51 "	Trial on 17½ lbs.
Fish refuse.—Bradford.....	82 "	Trial on 33 lbs.
Garbage.—Leeds.....	93 "	Trial on 8 lbs.

The ordinary ash-pit refuse of Bradford, which is found to contain 47 per cent. of water, leaves 33 per cent. of clinker and ashes, so that not more than 20 per cent. of the whole can be actually burned ; and the 13 tons of air to a ton of refuse is 65 tons of air to a ton of fuel burned.

Similarly, at Leeds, the 39 per cent. of water and 33 per cent. of cinders and ashes leave not more than 28 per cent. combustible, and the proportion of air to the fuel burned is more than 30 tons to a ton. At White Chapel, when the air was measured in July, the moisture in the refuse was far greater than in October, and the proportion of air to refuse was probably between the two just given.

Analyses of escaping gases.—The results of analyses of gases taken from the main flue are given in the tables below. Two analyses of gases from the Leeds destructors, which are given in a report by Mr T. Fairley, the borough analyst, are added to those made by Mr. F. N. Sutton. In a second table the oxygen and nitrogen are stated as common air and nitrogen, that being the condition in which they pass off.

Analyses of Gases from Destructor Furnaces.

—	White Chapel.	Ealing (1).	Ealing (2).	Bradford (1).	Bradford (2).	Leeds, Armley.	Leeds, Burmantofts.
Carbonic oxide	1·00	0.70	0·15	0·00	0·00	·0·00	0·00
Carbonic acid	2·54	1·00	2·20	1·60	2·40	2·32	1·24
Oxygen	17·55	18·20	18·20	18·70	18·00	17·42	18·11
Nitrogen	78·91	80·10	79·45	79·70	79·60	80·26	80·65
Volumes	100·00	100·00	100·00	100·00	100·00	100 00	100·00

The same Analyses otherwise stated.

—	White Chapel.	Ealing (1).	Ealing (2).	Bradford (1).	Bradford (2).	Leeds Armley.	Leeds, Burmantofts.
Carbonic oxide	1·00	0·70	0·15	0·00	0·00	0·00	0·00
Carbonic acid	2·54	1·00	2·20	1·60	2·40	2·32	1·24
Air	83·57	86·66	86·66	89·05	85·71	82·95	86·24
Nitrogen	12.89	11·64	10·99	9·35	11·89	14.73	12·52
Volumes	100·00	100·00	100·00	100·00	100·00	100·00	100·00

It will be observed that in the first table the volume of nitrogen is nearly the same in all the analyses, and represents the 79 per cent. of nitrogen in the air that passes into the furnace. The 21 per cent. of oxygen in the air entering the furnace is represented by the unconsumed oxygen, by the per-centage of carbonic acid (which is equal in volume to the oxygen combined in it), and where there is carbonic oxide by half the volume of that gas. A small proportion of the oxygen may also combine with any hydrogen there may be in the fuel, and pass off as aqueous vapour.

III. WATER SUPPLIES IN THEIR SANITARY RELATIONS.

At a time when so many municipalities are engaged in discussing the questions, on the one hand of the pollution of wells and other common sources of supply, and on the other the possibility of obtaining some public supply of assured purity, it may be of value to summarise some of the facts which have an everyday bearing on this most important question of municipal sanitation. The question of how to get enough of water is not primarily a sanitary but an engineering one; but inasmuch as the dangers of impurities from percolation are increased, the ordinary volume of water being lessened, we see that the two are intimately associated with each other.

Starting from the point that all water supplies are due to precipitation of water vapour, we perceive that their impurities are those which water receives while washing out the air in its descent, and whatever afterwards it may take up from the roofs of houses, the surface of the soil, etc. Water being a general solvent, either *per se* or by the carbonic acid, nitric acid, etc., which it takes up, we see that its impurities as compared with distilled water are most numerous; but with regard to those which have a sanitary

bearing, those from the air may be said to be only the micro-organisms which may, so to speak, be washed out, or which become attached to water-drops during a rain storm, and which become in towns a matter of serious importance. This fact, first fully proved by Miquel, of Montsouris Observatory, by daily observations of the number of microbes in the air of Paris, has been most recently neatly illustrated by Percy Frankland in experiments published in the Transactions of the Royal Society of London, 1887. Thus, he found by the *gelatine process*, as elaborated by him, the following numbers of micro-organisms in air the samples being examined on two different days:

July 22nd, 1886.—Wind S.W., strong, variable in direction, 23° .9 C temp. Four collections of air: average of colonies =114.
Average of colonies, taking 20, c. c. of the solution=71 colonies.
Hence 119 litres =1,360 colonies.
10 litres of aspirated air =114.

Same day, with much dust:
10 litres =169 colonies.

July 26th.—Wind W. by S.W., copious rain previous day and night, but road and pavement dry at time: 20° C temp.

119 litres of air gave	354 colonies.
10 " "	29 "

Afternoon of same day: heavy shower since morning:

119 litres of air gave	146 colonies.
10 " "	12 "

Hence we conclude that to the degree that the air was made purer, the water falling upon the soil was rendered impure. But as Duclaux and Koch have observed, the air is purity itself as compared with the soil and soil matters to which particles can adhere (although, doubtless, as has been proved by Miquel in his tables of the rise and fall of zymotic diseases in Paris, rise for a number of days after a rain, to fall subsequently again with rain, the air is especially the primary vehicle of distribution for the microbes of disease from the persons of men and animals, the rooms of houses, the wards of hospitals, etc.); and hence it is that we must naturally attach the greatest importance to the conditions of the surface of the soil, and of the houses upon which rain falls, as also to the materials which reach ground water from manure-heaps, privy-pits, sewers, etc.

The relations of the soil, as regards its physical characters, are perhaps a factor of importance equal with that of the impurities which fall upon it, or are deposited on it; since upon the character of soils, whether pervious or impervious, must depend in large measure the dangers of contamination of the subterranean water-supply. Pettenkofer has recently discussed this point in a paper "On the influence of the soil in the Development and Propagation of Epidemics," and I cannot do better than quote his remarks thereon:

Two primordial conditions regulate the rapidity with which rain passes through the layers of the soil, and the power of absorption of the soil. These are—the total volume of space and of pores contained in a given piece of ground; also, the individual dimensions of each pore. The volume of the pores does not vary much in different soils, and may be considered to occupy the third part of the whole. The dimensions of each pore vary considerably in different soils. In soil which contains large pores the water penetrates rapidly; a compact soil, in which the pores are very fine, is essentially hygrometric. Adjacent layers of earth of different natures absorb water in different proportions; the power of absorption which any given soil exercises can only be determined by examining this soil at different depths. Hofmann found that a piece of ground where dust heaps had been thrown at Leipzig, contained 374 kilogrammes of water three metres below the surface, while some adjoining soil contained only 147 kilogrammes nine metres below the surface; the total volume of water contained in the piece of ground was 1,122 kilogrammes, in the virgin soil the total volume was 1,258 kilogrammes. Hofmann further calculated that if the soil was completely parched, a rainfall of 1.20 metres would be required to restore the normal degree of humidity. This does not take into account the loss of humidity through evaporation and waste which amounts to fifty per cent. The level of the subterranean layer may be quite uninfluenced by the heaviest rainfalls, if it is low down and separate from the surface by layers, which retain the heaviest rainfalls without letting a drop pass through. The maximum rainfall generally corresponds to the highest level of the subterranean layer, but

the lowest level of the layer is observed before the minimum rainfall. With regard to permeable and hygrometric properties, Hofmann divides soil into three zones; the superficial or evaporating soil passes through all the intermediate stages of complete dryness to complete saturation.

It forms a reservoir which may collect the rainfall of a whole year; it is a receptacle for all pollutions, microbes, germs, or ferments deposited on the surface of the soil, which cannot penetrate to the lower layers, excepting through the action of excessive humidity. The hygienic importance of this zone is considerable.

The intermediary zone is in a constant state of humidity, excepting when it receives the surplus of the superficial zone. This surplus passes quickly through to the subterranean layer. The intermediary zone collects a quantity of water which is equivalent to the rainfall of several years. The superficial zone prevents evaporation from the intermediary zone.

The third zone, in compact soil, is only a few centimètres deep; in porous soil it is from one to two mètres deep. The subterranean water acts upon this zone by capillary attraction. It forms a permanent layer, or a level which gradually descends, when the intermediary zone supplies no more water, and rises, when this zone yields an excessive quantity of water.

When this level descends it generally indicates that water has ceased to penetrate from the surface, and consequently that the subterranean layer receives no more pollution from the soil. The infection of the subterranean layer is a concomitant condition of the infection of the soil. This is effected by a process which will now be described.

Germs, micro-organisms, organic matter, or ferments are deposited on the surface of the soil; if these are not dispersed by the atmospheric currents, it appears that only the action of water can cause them to penetrate below the soil. Porous soil is rapidly contaminated, but the contamination is less thorough than in compact soil, where the water mixes less quickly with soluble substances passing through it, and where these substances penetrate slowly through each layer, and form localized areas of contaminated zones, which alternate with zones which are intact.

Hofmann observed that the average rate of rapidity with which matter, deposited on the surface of some virgin soil, at Leipzig, penetrated in a day was 6·2 millimètres. This would represent a monthly rate of progression of 186 millimètres, and an annual rate of 2·26 mètres. This calculation does not allow for loss of humidity through evaporation and waste. The elements of an infectious fluid of a vigorous and active nature penetrate the soil rather more rapidly, but the hourly rate of progression does not exceed a fraction of a millimètre. This slow rate of progression is conducive to telluric infection; it allows sufficient time for the production of spores on the surface of soil in which the superficial layer preserves a relatively high temperature. Experiments made by Soyka prove that spores are more rapidly produced in soil than in fluids.

This scientist mixed given quantities of broth, peptonised in the proportion of 1 per cent., in which large proportions of bacteria, free from spores, were placed with some pure silicated sand in which each grain was two millimètres in diameter, and in which the volume of space and of pores occupied about two-fifths of the whole mass. The spores were more rapidly produced in this mixture than in a fluid. In another experiment this artificial soil contained disengaged spores at the end of four days, whilst in the liquid broth there were not any spores at the end of six days. In another experiment the soil contained spores ten hours after the beginning of the experiment, whilst in a broth cultivation the spores only appeared after forty-eight hours. In order to obtain an abundant production of spores the liquid added to the sand should occupy a quarter of the volume of the disengaged spores; if the water exceeds this proportion the spores will develop more rapidly, but in lesser quantities.

The same results may be obtained with the *bacillus subtilis*.

The results of these experiments are explained by the fact that the liquid mixed with the soil is widely dispersed in the capillary regions of the rocky portion, and is thus more exposed to the influence of oxygen, which is an aliment for aerobes; capillary attraction further maintains the liquid in a thin layer placed in contact with the elemeuts of the rock, but a certain immobility in the liquid mass, which contains quantities of bacteria, is thus induced. This immobility impoverishes the cultivation, and, according to a biological law, the spores appear more quickly on this account. Excessive humidity, which dilutes nfectious matters, may be as fatal to microbes as complete dryness of the soil.

Manifestly, therefore, the condition of the soil, and especially the surface soil, as a culture medium, is of enormous importance in relation to the purity of subterranean water supplies. While it is true, from Hofmann's experiments, that the rate of progression of polluted matter through soil is comparatively slow; yet an annual advance of about 2½ yards means contamination to a very considerable extent in a few years, if the source of contamination remains, while the purifying process is in defect of the demands upon it. The statement that porous soil is more readily, but less thoroughly infected, is quite in keeping with what we would expect; and while this is doubtless due to its greater porosity, it may be that this fact by allowing the presence of a larger amount of oxygen will act ultimately in a beneficial manner in certain instances by exhausting by fermentation the dangerous products in a soil. The fact that compact soils do become thoroughly contaminated, has an important bearing upon the question of the dangerous quality of waters drawn from different zones; since while it is true that the presence of oxygen in these deeper soils is the necessary requisite to the development of microbes, yet the fact that spores may pass onward with waters must account for the fact that waters from contaminated soils apparently become dangerous after they have filtered into wells, and there been enabled to come in contact with oxygen, practically absent in the deeper subsoils. As the decomposition of organic matter in soil,

whether animal or vegetable, depends upon the same conditions, I quote here some remarks from a previous report, as to the causes promoting malaria in the Grand River region :

The soils of the river valley, having always a certain amount of vegetable organic materials present in them, are first saturated with moisture. By this is caused a movement of the water towards the lower levels, at first we must suppose as sub-soil water at, or very near, the surface. Now, according to all experience, either with ordinary cultivated plants or the lower forms of vegetable life, this condition is most unfavourable to their free growth and development. But with drier weather the sub-soil water is lowered, and the interstices of the soil previously occupied with water are occupied with air, the upper looser portion having most, while every inch in depth will have more moisture. and, consequently, less air. Experience further shows that if this moisture is considerable the higher forms of vegetable life develop but poorly, while the coarse grasses and sub-aquatic plants take their place. But the moist soils are further favourable for the growth of cryptogamic vegetation of every kind. The conditions are much moisture and smaller amounts of air in the soil. But as the drying out of the soil proceeds, with the gradual lowering of the sub-soil water, the area in which sub-soil air is present is increased until we finally get a comparatively dry upper layer of well aerated soil, with layers as we descend, more moist and containing less air. Hence we have as results a soil which has passed through the stages which all experience shows to be most favourable for the development of bacterial life, viz.: sufficient moisture, not abundant but sufficient air. with, of course, sufficient heat being present. Without the air, organic decomposition does not take place in large amount ; but yet, as Dr. Angus Smith has remarked, in all probability nitrates yield up, in the presence of heat and moisture, and in great degree the absence of air, their oxygen in the decomposition or putrefaction of organic substances. On the other hand, the facts stated above concerning the vegetable forms which grow in soil with different amounts of moisture, as well as facts which have been noted by various biologists in the development of bacterial forms, and others very recently published in some experiments by Dr. Angus Smith on sewage decomposition, go to show that abundance of air will not only soon exhaust the conditions favourable for the free development of bacterial life, but will actually prevent, at least for a time, organic decomposition.

On this particular point we may glean some information from the discussions on the development of micro-organisms. Thus, as stated by Magnin, Pasteur affirms that there are two classes of these bacterial organisms, the *aerobies*, or those living in contact with air and needing oxygen ; and the *anaerobies* which not only have no need of oxygen, but are destroyed by it. Thus in putrefaction, according to Pasteur, there are the forms, *monas crepusculum* and *bacterium termo* which absorb all the oxygen dissolved in the liquid, and then come to the surface where they form a thick veil, after this other *vibrioniens* appear developed in a liquid almost entirely free from oxygen, by obtaining this gas from the fermentable matters contained in the liquid.

Bringing these opinions, which are given from various standpoints, to bear on the question before us the following seems to me quite apparent, viz.: that we have four stages in the history of the falling sub-soil water : (1) One, where the small amount of air in the upper soil. through the large amount of water present, prevents, to any great extent, decomposition of organic matter, and hence, proportionately, the growth of plants of any kind. This prevention of growth is, doubtless, aided from the fact that the evaporation from the surface of the soil keeps it at too low a temperature for the development of bacterial life, since Cohn has shown that at and below 32° F. bacteria cease to develop, and that temperatures from 77° to 104° F. are the most favourable for them. (2) The second stage is that in which air and moisture are both present in the soil in moderate amounts, and in which, with a warm temperature, decomposition of organic matter goes on rapidly, and bacteria under various forms, as micrococci and bacilli (according to Miquel) are present in large amounts. (3) There is the stage when the upper soils are dried out on the surface. (4) We have a final stage of drying out when the upper soil may contain, as remarked by Parkes, from two to ten times its own volume of air, and be parched, and contain almost no moisture. It will then be evident that while no one of these ever wholly exists over an extended area, yet there still are times when some one of them is the prevailing condition ; and, moreover, for reasons already indicated, such must have very definite influences on the amount of bacterial life present in the soil. Now, taking these conditions in order, it may be affirmed with much certainty that malaria cannot exist largely when the soil presents the conditions in the fourth stage ; but this is rare ; The second stage is one in which it may be said that bacterial life develops with greatest readiness, and during which it may be affirmed that *bacillus malariæ* is abundantly produced.

Regarding stage four, both experiment and analogy lead us to infer that as the conditions which create the disease, seen in stage three, develop into stage four, the development of germs is in large degree retarded. For the full explanation of this reference can be made to the subjoined printed extracts from Miquel.

Another point already hinted at in its bearing on the question, must be referred to here. It has been already stated that the sun's rays increase the soil temperature many degrees above that of the air above it during the the day. This super-heated layer of soil will not be thick ; but the fact in this connection must be noted, that it increases throughout the summer. In temperate climates the heat passes in summer some four feet into the soil during the day, and recedes at night. In all probability the transmission of heat is due principally to air currents, since it must be perfectly plain that the heated air of the soil will rise rapidly out of it, in proportion as it is heated, above the temperature of the surrounding air. Some remarkable experiments have recently been made public by Prof. Tyndall, which prove in the clearest manner that in addition to the facts above stated, and which are well known, the declining sun gives an opportunity for a completely different set of phenomena to take place. Speaking of the radiation of heat, he remarks that the earth, as compared with space, is a comparatively hot body, and that were it not for the apparently trivial amount of invisible vapour in the air the earth would soon be reduced to the frigidity of death.

These experiments not only point to the fact that radiation produces most rapid cooling of the earth, but also that in the same degree the air in the soil, as well as over it, must greatly contract with the sudden fall of temperature. Hence we may say that not only does soil air largely pass out of the soil during the day, but also that a considerable amount of fresh air returns to the soil at night. In other words, ground

air bearing the gases of decomposition, and possibiy invisible organisms, passes up into the outer atmosphere every warm day, and has its place largely taken by fresh external air with abundance of oxygen for continuing decomposition in the soil and the development of bacterial life.

Of necessity the deeper that air is in the soil the less will it be subject to change of temperature, and hence have its constituents change less, and will, therefore, always contain more carbonic acid and less oxygen; and thus the supposition that because the deeper air contains, on experiment, more carbonic acid, that therefore putrefaction and bacterial life are more intense, is wholly incorrect. But while we have thus explained how oxygen in sufficient amounts for the development of bacterial life in the soil is supplied, we have, in large measure, disposed of the theory which affirms that stagnant ground water is the chief factor in malaria. That stagnant ground water near the surface is coincident with malarial diseases does not prove that these stand in causal relation to each other, as Col. Waring and other sanitarians have suggested; but all that can be fairly inferred from the two facts is that water is always so near the surface that the upper germ-producing layer is, by capillary attraction, always sufficiently supplied with water to favour the development of such forms.

Bearing directly on this same subject from the engineer's standpoint, I quote some statements by Mr. Baldwin Latham, C.E., before the Conference of Medical Officers of Health, England, 1886, on "The Influence of Ground-water on Health." He said:

With rain in autumn, a mild winter, neither very tepid nor unseasonably cold, and rain in spring and summer, the year is likely to prove healthy; but if the winter is dry, and the spring showery, the summer would necessarily be of a fertile character. If, at the rising of the Dog-star, rains and wintry storms supervene, there is reason to hope that disease will cease, and the autumn will be healthy. It was curious that a dry winter was often the precursor of disease, not at that time, but in the following autumn. As a rule a short supply of rain in December had a most marked influence upon the stores of underground water, and a deficiency of rain in this month had probably a greater effect in influencing the future health of any particular district than it had in any other month of the year. As a type of a healthy season the present year was an example. It might be interesting to note that some years ago Dr. Laycock published an interesting account showing the incidence of disease in York, from which it appeared that this city was always susceptible to violent outbreaks of disease traceable to local sanitary circumstances combined with peculiar climatological conditions.

The results of his prolonged investigations on the subject of ground water in this country and elsewhere, clearly showed that there was generally a direct parallelism between the conditions of health and the volume of ground water. The years in which there had been a large quantity of ground water present had invariably been the healthiest years, while those in which there had been a small quantity had invariably been the most unhealthy periods. As a rule the lowness of the ground water indicated the future health, and not the state of health at the particular time of lowness, that was the unhealthy period, as a rule, followed the period of low water—the degree of lowness indicating the intensity of future disease, especially fever. In some cases an unhealthy period ran concurrently with the period of low water, but in all these cases there was clear evidence that percolation had recommenced before the unhealtny period took place. These results were entirely confirmed by observations which were carried on in Paris between the years 1868 and 1883, and which had been collated and published by M. Durand Claye, Chief Engineer of the Municipality of Paris, with the object of putting all the facts and circumstances in connection with the outbreaks of fever in Paris at the disposal of those who might choose to investigate the subject. With regard, also, to the experience in this country as to subsoil water, the lowering of the subsoil water by artificial means would produce a tendency to the development and dissemination of typhoid fever. The effect of drainage works during their construction in lowering the subsoil water where precautions had not been taken to speedily and permanently get the water back to its proper level had been, in many instances, the cause of outbreaks of typhoid fever, but which at the time had been attributed to the construction of the sewer works and to sewer-gas, even in cases where no connections had, at the time of the outbreak, been made with the sewers.

Speaking in regard to observations he had been carrying on at Croydon, he referred to the condition of the ground water, and the effect of the rainfall upon the death-rate, and he went on to show that by the returns of the Registrar-General, which showed the deaths in every quarter of the year, the most unhealthy periods were invariably those quarters immediately following the periods of low water. With regard to deaths from fever, the years in which there has been the lowest subsoil water generally in the country are shown to be the most unhealthy; as, for instance, the two years 1864, 1865. The year 1884 was an exceptional year in Croydon, and it was by means of such exceptional periods that they were able to draw some conclusions as to the probable influence of ground water upon health. It was clear to his mind, after the most careful consideration of the subject, that ground water itself had no influence, either for good or evil, upon health, but that the lowness or highness of the water in the ground were the index of conditions which greatly influenced the health of all communities. There were periods of abundance of water, and periods of low water with both healthy and unhealthy conditions. Ground water had been shown by Professor Pettenkofer to be chemically more impure in periods of high water, when the conditions were favourable to health, than when there was a low state of the ground water, and a condition unfavourable to health. The records also showed that they had periods when rain had started into existence malignant diseases, while, on the other hand, there were similar heavy rainfalls accompanied by a high state of public health, as in the present year. The records clearly pointed out that it was not one circumstance alone which produced disease, but that there were at least three factors necessary for the production and distribution of disease, especially typhoid fever, viz.:—(1) The elements which produce disease, such as a polluted state of the ground; (2) the conditions which are necessary for the development of disease, such as a period of dryness of the ground in those regions which water usually occupies, combined with a comparatively high degree of temperature; and (3) conditions which will lead to the spread of the disease, such as the probable influence of a storm or rain in driving impurities out of the ground into our water supplies, or through the instrumentality of ground air passing into our habitations, and its reception by a population which is in a condition to receive such germs of disease. If any one of these conditions was absent, diseases like typhoid would not occur.

Fifty years of percolation observations at Nash Mills showed percolation to be almost coincident with zymotic diseases. Mr. Latham then dealt with the influence of light and the influence of temperature, and pointed out that cold was not essential to the promotion of disease, especially in children under five years of age. When we came to isolate the deaths in particular months, and compare them with the periods of low water, it often happened that extreme low water in winter corresponded with periods of great cold, and low water in summer also corresponded with periods of great heat, and it is only at such times when they were able to discount these influences by comparing them with periods when they had a normal state of things with reference to temperature, and abnormal in regard to ground water, that the influences measured by the ground water were brought into prominent relief. Pettenkofer, in his researches, had not ignored the conditions which affected epidemic disease, for example the conditions of wealth as contrasted with poverty. It was clearly shown that poverty had a marked influence in the dissemination of disease, and that epidemics fell more lightly upon the wealthy classes than upon those who were not so happily circumstanced. It should, however, be observed that the social position of different classes of society did not affect the periodicity of the outbreaks of disease, and occasionally typhoid fever attacked the wealthy classes more violently than those less favourably circumstanced, as was the case in Croydon in 1875. A very marked circumstance in connection with ground water, and the period of percolation, was shown in the case of deaths of children under five years of age. While there might have been mistakes with reference to the causes from which a child died, very little error occurred with regard to its age. He was of opinion that the proper way of estimating the sanitary state of any period in any district, was by taking the number of children under five years of age, and calculating the deaths by the number living at these ages. The most healthy periods were those in which there was the most ground water, and the least healthy those in which there was the least ground water in any year. These results corroborated the strong relation which existed between the highness or lowness of water in the ground in regard to zymotic diseases. It also showed that there were influences at work, which could be measured by the quantity of water in the ground, which were destructive to young life, and which might be guarded against, as these influences indicated themselves many months before they began to affect the population, therefore, "to be forewarned is to be forearmed." The fluctuation of the water line was an essential condition in the development of disease, especially typhoid fever and cholera. They had the record in connection with the city of York, in which it was clearly shown by Dr. Laycock, in his report on York, published in the first volume of the Health of Towns Commission, that previously to the construction of the lock at Naturn below the city, the tide used to flow up above York, and there were considerable variations in the level of the waters from time to time, but, after the construction of the lock in question, the health of York materially improved. The health of districts such as the Wandle Valley was proverbial. In the latter district there were a large number of mills in a comparatively short length, holding up the water to a uniform level. With such examples for their guidance, it was clear that sewers might be of great advantage in maintaining uniformity in the water level. On the other hand, leaky sewers were liable not only to pollute the ground, but to cause considerably greater variation in the levels of underground water than would otherwise occur in various parts of the district. Good land drainage had a tendency to produce uniformity of water level, but this should rarely be attempted to be secured through the instrumentality of sewers carrying polluted matters. The influences which were observed clearly pointed out how important it was to guard districts against pollution of the earth. How little regard, however, had been paid to this point, for it was only within the last ten years that the importance of making sewers as watertight as possible had received serious consideration, and still, in many parts of the country, sewers were being constructed without any regard to watertightness and their other influences on ground water.

To make in some degree complete these extracts on the bacteriology of soil, I quote from Koch's statements regarding the micro-organisms in earth. He says:

Some experiments I made on the organisms contained in the earth, although few in number, still afforded fairly constant results, and permitted the general conclusion that the upper layers of the soil are particularly rich in spores of micro-organisms (the great majority being bacilli). In perfectly fresh earth micrococci are usually found, but almost always in small numbers. In testing very impure places, such as soils impregnated with manure, the number of micrococci exceeds that of the bacilli, and moulds were also present, but this is of course simply a local peculiarity. Bacilli, on the other hand, occur constantly, and always in large numbers, in the superficial layers of the ground round dwelling houses, and where gardening and agriculture is carried on. I have found them in the earth of the garden of the Veterinary School in Berlin in as large numbers as in the earth of a disused cemetery, and in earth taken from gardens and ploughed fields at a long distance from any thickly populated parts. If the portions of earth are first dried for a few weeks micrococci do not appear in the cultures, while the bacilli are as numerous as before. Since it has been known for some time that micrococci do not form spores, and consequently can survive the dried condition but a very short time, it is obvious that while the micrococci are killed by the drying, the bacilli must be present in the earth in the form of spores. This view is confirmed by the fact that the germs of the bacilli in the earth can withstand degrees of heat which are fatal to everything except spores. This we have found to be the case in experiments on disinfection. Since only spores and very rarely bacilli are found in the earth, it seems to me very probable that these spores are not developed at the spot where they are found, but are brought to the soil in manure and putrefying material; it is also very possible that they may be swept off by a current of air from the place where they are developed, carried a long way, and deposited on the earth, and hence become mixed up in its upper layers. The chief bacilli found in earth are hay bacilli and the bacilli which form the root-like colonies already described; but besides these there are often a few more, usually 6 or 8, very well marked species of bacilli.

I observed one very striking fact, which, however, I do not assert to be invariably true as it is only based on a few observations. It consists in the steady but rapid decrease in the number of micro-organisms in the earth strata according to the depth, so that at the depth of one metre the undisturbed soil is always free from bacteria. I have proved this to be the case even in the midst of Berlin, in soil freshly excavated for buildings, cultivation on gelatine of the soil from the depth of one metre showing no bacilli, and only a few solitary colonies of very small micrococci. In one case the earth was taken at 2 metres depth from the foundations of a new house close to the tank *Panke* in the Philippstrasse, at the level of and scarcely 2 metres distant from the water, and yet these specimens of soil proved to be extraordinarily poor in micro-

organisms. It is well to remember, however, that my observations were only made in winter, and it is possible that in summer the facts are different. Nevertheless if, according to the universally accepted view, there is a luxuriant development of micro-organisms in the ground, water, and the earth in its neighbourhood, the spores of these organisms must be left behind, and ought to be found in winter in the lower layers of the soil as easily as they can be demonstrated in the upper surface.

From the numerous extended references we have made, it is abundantly plain that the soil as the source of water-supply plays an all-important part in the question of water-supply, and, as far as evidence goes, is not only the source of enormous—and by far the major part of ordinary—water supplies; but plays a part of greatest moment in the purity of waters, whether in the soil soakage, or superficial flow from it, as creeks, rivers, and lakes. What we have especially learned from these recounted experiments is that to the surface accumulations must we look for those pollutions which ultimately affect the purity of ground water from a sanitary standpoint; but that the extent to which such pollutions become dangerous seems to depend in large measure on the depth of the ordinary ground water, and to some degree the porosity of this soil. That this varies immensely is proved by many facts; but none more than by an occurrence witnessed in 1883, in London West. This village, the soil of which is very sandy, was suddenly one night completely inundated by the rising of the Thames, due to a storm of unprecedented violence. Houses were swept away, wells, cellars, privies, etc., were filled level with the ground. The river remaining high for several days, the falling of the ground water was slow, and London city lent its fire engines to the work of pumping out cellars. One forenoon the firemen began pumping out a 10 ft. square cellar. They pumped half a day, and lowered the water only some three feet; but the water in surrounding wells and privies was lowered to a practically similar degree. Recently again in the chemical examination of water on Homedale island at Brantford, formed largely of river sand and gravel, it was found that water from a certain drive-well showed by examination made by different chemists, and weeks apart, a persistent excess of albuminoid ammonia in the water. Contamination was at first thought to be accidental, but as after several hours of pumping the analysis showed practically the same degree and kind of contamination, the conclusion became inevitable that an adjacent depression which formed a *cul-de-sac* into which waters from a spring flowed during the greater part of the year, supplied conditions for contamination from the fact that an excessive vegetable growth on the banks of this pond to a point increasing with the falling waters of the summer, along with materials washed down by the small creek, caused a large amount of vegetable decomposition. No evidence of sewage contamination existed either from analysis or from surroundings.

Such are these, however, which cause the contamination of creeks, river-waters and reservoirs, and establish a class of conditions of much sanitary interest and importance. What we wish especially to know is what it is which establishes the health qualities of a water from whatever source. Water analysis continues in Ontario to be based upon the principles laid down in England some fifteen years ago, and establishes standards of impurity largely upon the rules of Wanklyn, which fixes the quality on the amount of albuminoid ammonia in solution in the water.

Thus Class I. extraordinarily pure contain 0.00 to 0.05 of albuminoid ammonia per gall.
Class II. most ordinary waters, 0.05 to 0.10 of albuminoid ammonia per gallon.
Class III. dirty waters yielding more than 0.10 " " "

Says Parkes the latter is too sweeping a condemnation, and further says, "Decaying leaves and peat produce albuminoid ammonia. Much albuminoid ammonia, little free ammonia and almost entire absence of chlorides is indicative of vegetable contamination." (Wanklyn.) He says further: "In the water of a pond in Perthshire I found: free ammonia, 0.36; albuminoid ammonia, 2.00, and chlorine only 0.62 per gallon. This had been used for many years without any bad effects observed. Prof. D. T. Ansted, M.A., London, in his classic work on "Water and Water Supplies," states in his general definition of a wholesome water that "a peaty water, however, of olive brown colour when seen in bulk is not objectionable." Further regarding water subjected to injurious contact he says: "By afterwards passing through and amongst strata in the interior of the earth,

or simply by passing over the surface in a stream or river, a purifying as well as an injurious effect may be produced, chemical change takes place, new combinations are entered into and the water becomes altered in its composition either for good or evil. This is the case with organic as well as inorganic constituents." Speaking of the purifying action of running water, he says, "River water is constantly receiving a certain quantity of organic matter carried in from the land on the banks, or obtained by the death and decay of various aquatic plants and animals. After exposure to the ordinary action of light and air these offensive matters become combined with oxygen and are thus converted into oxides by a process which closely resembles slow combustion"..... In all cases the waters become purified as they proceed, but the rapidity of the process depends on the conditions of mixture and exposure. *The varying condition of the water accounts for the very different results obtained by chemists as to the distance and time required for perfect destruction of the sewage impurities that enter into a river.*

The English Commissioners, amongst whom was Dr. Frankland, came to the conclusion that the waters of polluted streams were not rendered potable and safe by any mere exposure to the air present in water. A point of still greater interest in this connection on account of the important bearing of microbes on the healthfulness of a water is found in the following statement: "It would seem quite possible that when taken at a particular part of a stream water may appear, even under analysis, to be without any source of serious pollution, while the same water, when it has flowed for some distance without being interfered with may become exceedingly bad without other admixture." This fact has been well set forth in the analyses which were made of the waters of the Ottawa December, 1887, after the widespread epidemic of fever which appeared in the city the first week of November and which continued till the end of the year. The analyses of the waters of this river happen to have been made in September, 1881, and the results of the analyses then made have been compared with those by Prof. Shutt, of the Agricultural College, made of water taken on the 24th of December. In the comparison it will be found stated that in the permanent qualities of the water such as hardness, color, etc., the Ottawa water remained the same in 1887 as in 1881: chlorides were as low as .5 parts per million, while the free ammonia was so small, viz., .0007 per gallon as, says Shutt, to make one conclude that there was no sewage contamination, which was wholly justified by the facts of the case. In the case of the same water analyzed by Baker-Edwards, the ammonia was .0056 in the month of September when decomposition was free. Now when we compare the albuminoid ammonia we find conditions quite reversed. In December the albuminoid ammonia was .0084, while in September, 1881, it was only .0011. We see that this test of impurity in December showed the water to be decidedly below the standard of normal purity, while in the former case its amount was comparatively small. It is instructive to remember that the fever as an epidemic by December 22nd had ceased, and that had analysis been made of the river water on November 1st it would probably have been found that the albuminoid ammonia was much less in amount than at the later date. Shutt found, as we would expect, that the microbes in the water were few in amount in December; but as we have seen from the albuminoid ammonia the food for their development was abundant, and had the temperature been favorable we would have found them numerously present. We think it quite evident, therefore, that locality, soil, season, temperature, place whence taken (as deep well, river, reservoir, creek, etc.) must all be tabulated and the relative importance of each noted, before any very accurate conclusions can be drawn regarding the quality of a water from the sanitary standpoint. In the paper before the Healtheries Exhibition by Prof. Odling, M.B., F.R.S., F.R.C.P., on "The Chemistry of Potable Water," he said:—

That the organic matter of potable water is constituted, in the main, of dissolved, unorganised, and non-living matter, does not admit of question. Anything like an adequate discussion, however, of the origin, nature, and possible hygienic influence of this main portion of the organic matter, could not but involve a very long story. It may suffice here to say that, having regard to its origin and nature, and to the minuteness of its proportion, the presumption against any unwholesomeness attaching to its presence is very strong. To what extent living and unorganised matter may be also present; how far such living organic matter may include a something capable of developing zymotic disease; and, admitting all this, how far the liability of different waters to contain more or less of noxious living organic matter is related to the varying amounts which they contain of innoxious non-living organic matter, are questions far more difficult of

solution. They are questions on which, in the present imperfect state of our knowledge on the subject, it behoves every one to speak with caution; but in my own view, having regard to what is observed and recorded respecting the health of differently supplied populations, and to what little is known of the natural history of disease-producing organisms, the preponderance of evidence does not, I think, favour an alarmful answer. Other persons, however, are of a different opinion. But the address which I have been asked to read at this Conference, is on the chemistry of potable water; and my concern to-day is solely with the chemical aspect of the subject. It is not from biologic or pathogenetic inquiries, but from the results of the chemical analysis of the water supplied to London—from the mere determinations of the quantity of its organic matter—that its wholesomeness is month after month, by suggestion, impugned. On this point I join issue altogether. Further, it seems to me an abuse of chemistry, that a chemist who on other than chemical grounds may, rightly or wrongly, have satisfied himself of the unwholesomeness of a particular water supply, should state and summarize the result of his analyses in such a fashion as to make it appear that unwholesomeness, which he really infers on other grounds, is deducible from the results of his periodical chemical examinations. It is well understood that a statement, of which the verbal accuracy cannot be challenged, may, nevertheless, be far from a warrantable statement. It may convey a *suggestio falsi*, and include a *suppressio veri*. Such I take to be the case with the statement, paraded month after month, in what is an official, and should be a scrupulously impartial report, as to the relative "amounts of organic impurity" contained in individual samples of metropolitan water, compared with a particular decennial average amount present in the Kent Company's water,—a standard, by-the-bye, of which the value is known and used only by the reporter, whose comparison, accordingly, it is impossible to check. This monthly statement suggests, I take it, the notion that spring water is the proper type of what river water, or at any rate of what metropolitan water, should be—a notion entirely without foundation, and discordant with the reporter's own strong recommedation of lake-water for the supply of London. It further suggests the notion that the desirableness and general wholesomeness of different waters are inversely proportional to their relative "amounts of organic impurity," irrespective of the origin and nature of this so-called impurity,—a notion equally devoid of foundation. On the other hand, the statement in question suppresses the fact that spring-water, lake-water, and river-water, have each their special characteristics, excellencies, and defects. It suppresses the fact that the so-called "previous sewage contamination" of the standard spring-water is as relatively high, as its "amount of organic impurity" is relatively low. It suppresses the fact that the "amount of organic impurity" in the metropolitan river supply, though threefold or fourfold that present in the spring-water supply, is nevertheless almost infinitesimal in absolute quantity. It suppresses the fact that the "amount of organic impurity" in the highly reputed Loch Katrine supply is, during the summer months, in excess of, and is on the average of the year substantially identical with, the summer yearly amounts respectively present in the metropolitan river supply. It further suppresses the fact that the head waters of the Thames, by the time they reach Lechlade, about 22 miles only from their source, and 120 miles above the Companies' intake have exchanged their character of spring-water for that of the river-water, and irrespective of urban contamination, contain an "amount of organic impurity" identical in quantity with, and chemically undistinguishable in kind from, that met with in the river-water at Hampton. I dispute altogether the notion, suggested by the mode of statement adopted in the monthly reports made to the Registrar-General, that the relative unwholesomeness of the Kent Company's water, the New River Company's water, and the Birmingham Corporation's water, was, during the last eighteen months, approximately as the numbers 1, 2, and 3; or, in other words, that it was in the proportion of the 8-hundredths, the 15-hundreths and the 23-hundreths of a grain of dissolved organic matter per gallon, present in the three supplies respectively. I contend, further, that the New River Company's water would have been no more wholesome or unwholesome respectively, if, instead of actually containing 15-hundreths of a grain of organic matter per gallon—this organic matter being chiefly of vegetable origin, and a product of ordinary fluviative life—it had contained, like the Kent Company's water, as little as 8-hundreths of a grain, or like the Birmingham Corporation water, as much as 23-hundreths of a grain of organic matter, the absolute variations of a tenth of a grain or so of such dissolved organic matter per gallon, being too small to have any real hygienic importance whatever.

If it were indeed the fact that the dissolved organic matter of potable water, taken as a whole, is of such a nature that, in the proportions in which it is met with, it is capable, on occasions, of developing and spreading epidemic disease, it is manifest that no plea, based on the actual smallness of its proportion, would be of any avail to save it from hopeless condemnation. It is manifest also, on this assumption, that the determination of the variations in the proportions of organic matter present in a water, notwithstanding the minuteness of even the maximum proportion, would be a determination of the highest significance; and further, that any information furnished in intelligible language to the general public, as to the results of a comparison of different waters with one another in regard to their respective proportions of organic matter, would have an extreme degree of interest and value. But all this is based on the hypothesis that the dissolved organic matter of water, or at any rate the dissolved organic matter of some water, taken in its entirety, is a noxious constituent of the water, capable, in proportion to its quantity, of setting up epipemic disease; a view, it need scarcely be said, which is sustained by no sort of evidence, and supported by no weight of authority. If, indeed, the organic matter of water were really of this noxious character, the conclusions above set forth, with regard to the propriety and value of a comparison of waters with one another in respect to so noxious a constituent, would be undeniable. But if, on the other hand, the minute proportion of dissolved organic matter met with in potable water is constituted mainly of innocuous vegetable extractive, with a trace or more of innocuous animal extractive; and if, at the same time, this organic matter does not affect in any appreciable degree the taste, or colour, or appearance of the water, clearly all variations in the amounts present in potable water, that fall within the limits of an exceedingly minute proportion, are matters of no consideration whatever; and this whether they be variations in the proportions existing in different waters, or variations met with in the same water at different times. And the same conclusion would hold good, even if the organic matter of water, while constituted in the main and at most times wholly, of innocuous extractive, was, nevertheless, liable to include at other times a sub-proportion of an effectively noxious agent; unless, indeed, it could be shown that the liability of different waters to contain this noxious agent was in proportion to their relative amounts of dissolved organic matter—a proposition so preposterous as never to have been seriously put forward. Whether or not there exist any good grounds for calling in question the excellence and wholesomeness of the water,

supplied to probably the healthiest great city of the world, is another matter. Speaking as a chemist, I represent that there are no chemical grounds for such a contention. In support of this position, I would call to mind that the last Royal Commission on Water Supply, after hearing very varied evidence, much of it of the usual alarmist character, reported to the effect that the presence of a small quantity of organic matter in drinking water was not necessarily prejudicial; and that there was not any evidence to satisfy them that the particular organic matter present in filtered Thames water was prejudicial. Their conclusion on the general question is expressed in the following words:—"Having carefully considered all the information we have been able to collect, we see no evidence to lead us to believe that the water now supplied by the companies is not generally good and wholesome."

In reply to remarks made on the discussion which followed his paper, Dr. Odling said:

As regarded the general question, the influence of the presence of organic matter in water must depend, not on its quantity but its nature. And any comparisons put forward with regard to quantity, irrespective of nature, fell to the ground altogether. Had there been sufficient time, it was his intention to discuss the question of quality as he had the question of quantity; and he had notes ready for the purpose, but time did not allow of their use. Any general statement, and any conclusion he had formed or expressed, with regard to quality, was formed on a consideration of evidence, and was gone into by him as minutely as he had gone in to the question of the influence of quantity. The gist of the whole question in the present state of knowledge seemed to rest on an observation of effects. Of course if you took one week and compared it with another, or one town with another for a short period, you might arrive at almost any result you pleased; but if you took large populations, and examine the statistics for lengthened periods, it would be found that there was absolutely no difference whatever in the health of the population which could be ascribed to the drinking of river water, or spring water; from which it would seem all these different varieties were, in their different ways, well suited for the supply of large populations.

What, however, is being rapidly recognized is that the sanitary qualities can probably be best recognized collectively by a biological analysis of the water in which the number of living microbes in the water at any time may be accurately made and calculated. Not only this, but this is the only method at present by which the character of the microbes which feed on the albuminous materials in the water can be in any degree made out. To illustrate this point I have selected some comparative analyses of waters made by Thomas G. Nasmyth, M.B., C.M., D.Sc., Medical Health Officer for parishes of Beath, Dalgety and Aberdour, Scotland. The following is transcribed from his report:

Name of Water.—For reference to slides, Kirksburn.

History of Water.—This water it was proposed to introduce into the Village of Cowdenheath. The burn is formed by the collection of various springs, and from the surface of land in good cultivation which form its banks on both sides. Within thirty yards, at one point, there are a stable, byre, and pigsty, and within 150 yards, and at a higher elevation, a churchyard. The supply was favourably reported on by the engineers consulted. A survey and report was made by them, and in their report they referred to the question of nitrates, which, by the analysis, were seen to be excessive. The engineers could not understand why nitrates should be excessive in this case. The sources of contamination mentioned above sufficiently indicate the reason, and it also shows that there should be some other opinion than a merely engineering one on proposed water supplies.

Analysis of Kirksburn.

	Grains per Gallon.
Total solids	9.76
Volatile residue	1.04
Saline residue	8.72
Lime	1.92
Silica	0.40
Chlorine	0.96
Alkaline nitrates	0.60
Saline ammonia	.004
Albuminoid ammonia	.0096

This water is suspicious from nitrates, saline and albuminoid ammonia.

Plate Cultivation.—Made April 10, examined April 14, number of colonies 260. The number of drops used in all my cultivations was five, and this result is nearly six times more than the ordinary waters I examined.

Slide Preparations.—Five in number, and showed the following appearance:—

No. I.—Stain brown. Contains numerous fine bacilli and sarcinæ.
No. Ia.—A good slide; shows very small bacilli like B. termo.
No. Ib.—Bacilli; some arranged in clusters; zooglœa;
No. II.—A very good example of giant cocci, or torulæ, showing arrangement of single, double, fours, and clusters.
No. III.—A few cocci, bacilli; some are very short and straight, others curved and convex at ends some contracted in middle, like B. termo,
No. IV.—Single cocci; pairs and zooglœa.
No. V.—Long bacilli, evidently B. subtilis.

Inoculated into tubes with nutrient jelly from points on plate cultivation.

Tube I.—Kirksburn. Surface of jelly concave, growth in centre, whitish in appearance, half an inch long, one-eighth long, flat in shape but irregularly so.

Slide.—An impure cultivation, showing both micrococci and bacilli, the latter most abundant.

Tube II.—Inoculation into agar tube. Whole surface opaque but darkest in centre.

Slide.—Bacilli, and like B. termo.

Tube III.—Surface opaque; growth extends half inch into jelly.

Slide III.—Very fine and short bacilli.

Tube † slide †; torulæ faintly stained.

Remarks.—This water needed no analysis to condemn it. Its sources were sufficient for this purpose; but the chemical and biological characters show it to be a very dangerous water, containing excessive organic matter and excessive numbers of organisms.

Loch Katrine Water.—Analysis by Prof. Mills, Glasgow. Expressed in parts per 100,000:—

Total solid impurity	2.90
Organic carbon	.255
Organic nitrogen	.030
Nitric nitrogen	.004
Ammonia	.080
Hardness	.95
Chlorine	.75

Temperature, 44·42° F.

Loch Katrine water is well known to be one of the purest waters, and the result of my examination of this sample confirmed the opinion. Using the usual number of drops, five, I found only 27 colonies on the jelly; one was liquid; made two inoculations into jelly and made six slides.

Slides I.—A very good slide; bacilli; some short, others long, curved, and others straight. II.—Fine bacilli and micrococci. Bacilli like as if formed by the junction of cocci. III.—Cocci and bacilli. IV.—Cocci and few torulæ and filamentations like B. subtilis, and pieces of a mycelium. V.—Cocci and bacilli. VI.—Some very thick and long bacilli; sharp cut at ends. Also giant cocci or torulæ; inoculation into tube; large, round, and oval torulæ, stained brown.

Remarks.—The chemical analysis and the results obtained by the biological method quite agree, as in only very pure waters do we meet with so few colonies.

Northwell.—This sample was collected at the mouth of the overflow pipe from a cistern in which this water is collected. The water issues from whinstone and is away from any source of pollution. The bottle could not be submerged, so that in process of cultivation some accidental impurities got in.

Analysis of Water.—Expressed in grs. per gallon:

Total matters in solution	9.09
Saline matters	8.47
Organic of vegetable origin	.62
Hardness	.5

A water of excellent quality, and fit for any domestic purpose.

Plate Cultivation.—About fifty colonies; but at least ten were mycelial, due to penecillia, aspergilli, etc.

Slides I.—Form of mycelium with spores on free surface. II.—Similar to No. 1. III.—Torulæ and fragments of mycelium. IV.—A good slide; at one part thick and long, bacilli at the other; cocci arranged in groups of one, two, and fours, and some form rods; but this is probably due to bacilli in the process of degeneration.

Coccocœa. Single cocci. Diplococci and streptococci.

Drawing of No. V. slide.

Slide VI.—Micrococci and fine bacilli.

Butter Well.—The water here is of the same character as the North Well, and comes from whinstone. The well is a deep one, situated away from any source of pollution, and is remarkable for coldness and purity of water.

Analysis.—Expressed in grains per gallon:—

Total matter in solution	8.14
Saline	7.63
Organic	.51
Hardness	.4

A very pure and good water for all domestic purposes.

Plate Cultivation.—About twenty-seven colonies, some of which were due to mycelia.

Slides No. I.—Consists of mycelial filaments and a few small bacilli. II.—Mycelial. III.—Cocci, an arrangement in clusters; zoogloœa. IV.—Mycelia and torulæ. V.—Micrococci and mycelium. VI.—Micrococci and mycelium.

Keddie's Well.—As a contrast to those pure waters, the following is interesting:— At the house supplied by this well years ago I had cases of enteric fever which I believed were connected with this well, and at that time I advised its discontinuance. The roof of the well was under the garden; roof and sides built of loose stones.

Of course the danger here is pollution by the manures from the garden. I made a plate cultivation in the usual way in the month of March, and found to my great disappointment the water was pure, and it was only after some days that I explained to myself this unlooked-for result. It was March, and no manure had been put on the soil from the April of the preceding year, so that the chances were, after the month of April this year, the time when gardens are manured, the well would receive its supply of organic matter. I examined, after a short period—during which time there had been heavy showers—sufficient to effect what I anticipated, and on my next plate crop were countless organisms and the following description of slides:—

No. 1.—Short rods like B. termo. 2. Bacilli in process of fusion; short and thick, oval at ends. 3. Thick and longish; bacilli; breadth more marked than length. 4. See drawing. 5. Small short bacilli. 6. Bacilli and micrococci; filaments of mucor. 7. Fine faintly stained bacilli and micrococci. 8. Bacilli, short and long, and ditto.

The large number of slides showing bacilli is peculiar, and in my belief the excessive presence of bacilli accompanies organic pollution of water.

F. Well.—This well is remarkable for the coldness and purity of water. It is situated in a field away from any source of pollution, and is undoubtedly pure. The water comes off whinstone same as Butter Well and North Well referred to. The chemical analysis would be very much the same as of those wells. Temperature of water, 51°F.

Plate Cultivations.—After four days showed twenty-eight colonies, eight of which were mycelial, and due to accidental pollution probably. No liquefaction to cover glass preparations. No special description is needed, as all were either torulæ or mycelial.

Manse Well.—The water in this well was suspicious from the following facts: The well was thirty feet deep and situated between the stable and back of Manse water-closet. The pipes from the w. c. were common, unglazed, unjointed tiles, and led into a cesspool by passing under the kitchen floor. The cesspool was about twenty yards distant from the well, the w. c. about five yards, the stable litter-heap about ten yards. The water from this well needed no chemical analysis to condemn it as being dangerous for use.

Plate Cultivation.—Laden with colonies.

I.—Bacilli; some short, others like B. subtilis; very clear and distinct bacilli. Drawing. II.—Like No. I. III.—Long oval torulæ, some budding. Long bacilli, some thin, others broad. IV.—Giant cocci or torulæ in ones, twos, and threes; also bacilli. V.—Torulæ or giant cocci arranged as in No. 4 slide. VI.—Bacilli; very beautiful slide.

This water is undoubtedly polluted by sewage and shows an excess of bacilli.

We have here admirably set forth the results readily obtainable by Koch's method of *plate analysis*, and while lacking in a number of the details regarding temperature, season, etc., which we have considered necessary, it points out that free development of microbes may be expected to take place in waters contaminated with sewage, or vegetable matter, and that their injurious qualities may be expected to correspond therewith.

The knowledge, as regards each special variety of microbe, is on the increase, and only when the life history of the various forms of bacteria have been fully studied can we hope to be in a position to speak confidently regarding the accuracy of results of the analyses of waters. Until such time arrives we must continue to depend, as even then we must largely, upon the sum total of conditions affecting the purity of a water before much dependence can, from the health standpoint, be placed on the simple results of the common methods of analysis.

All of which is respectfully submitted,

P. H. BRYCE,
Secretary.

THE CHAIRMAN'S ANNUAL ADDRESS.

To the Members of the Board of Health:

GENTLEMEN,—In the recently issued Fifth Annual Report the work of our Board, as also that of many of the Local Boards of our Province, has been detailed at a length sufficient to convince the readers that a great deal of the work of investigating the causes and prevention of disease had been accomplished, thus leaving few topics for comment in the annual address.

It is a generally admitted axiom that the work of administration cannot advance far beyond the limits of legislation, that there must be combined action before any great results can be effected by the supplementary Health Act passed at the last meeting of the Legislature. Notwithstanding the successful working of the Provincial Board has been greatly facilitated, a great step in advance has been made and upon evidence being furnished of good work resulting, obstruction and prejudice will in time be greatly diminished, if not generally overcome. It may perhaps rightly be held, that only by visionaries, or as the members of this Board by aldermen and town councillors are more familiarly designated sanitary cranks, can the complete extinction of contagious diseases be accomplished; but of complete success in preventing their spread by early notification, isolation and other sanitary measures, there has been furnished abundant evidence. It may be held to be premature to formulate any conclusions as to the working of the principle of compulsory notification of contagious disease, as in the amended Health Law for our Province enacted, but I may, whilst on this subject, mention that it has been enacted by thirty-nine constituencies in England, and I take as an illustration of the benefit resulting from it, the report of the Medical Officer of Health for Nottingham, Dr. B. A. Whitelegge, who shows by tables and figures that each extension of compulsory notification had been followed by a decided reduction of mortality from the diseases in point, viz.: smallpox, cholera, typhus, typhoid, scarlet fever, diphtheria and relapsing fever.

In years previous to notification, experience shows that both small-pox and scarlet fever were epidemic every few years, the former frequently disappearing almost entirely in the intervals while the latter contributes always its quota to the annual mortality even in the non-epidemic years. Dr. Whitelegge goes on to say:—"Making due allowance for these considerations, we have the following reasons for attributing to the system of notification an important part in the result:—

"1st. The decline in each case commences with the commencement of compulsory notification. The consideration suggested above, with regard to smallpox and scarlet fever, viz., that they may have been taken at the crest of an epidemic wave, does not hold good in the case of enteric fever, which had been slowly gaining ground for several years previously.

"2nd. The decline is continuous. In scarlet fever, we have an uninterrupted fall for four years, the notifications meanwhile becoming more and more numerous in proportion to the deaths, that is, the system has gradually come into full operation.

"3rd. The decline is not merely to the usual level on non-epidemic years, but to a point considerably below it.

"4th. The decline in the scarlet fever mortality is greater than can be accounted for by the general diminution throughout the country. The death rate from scarlet fever in 1885, was in Nottingham 0.13 per 1,000, and in the twenty-eight large towns 0.24.

"5th. The decline which has been so curiously constant in the notified diseases, has not taken place in the other zymotic diseases—whooping cough has largely increased in mortality, and measles has held its ground. These two zymotic diseases not being included among those required by the Health Committee for notification.

"6th. The conditions discovered and dealt with in consequence of notification are such as would almost inevitably in the absence of interference by the sanitary authorities have led to the spread of infection. In the case of scarlet fever, it is in too many instances the exception and not the rule for children to be voluntarily kept away from school until

the infective stage is over, that is until desquamation has entirely ceased. Medical supervision does not, as a rule, extend beyond the earlier or acute stages of the illness, and the friends have little regard for the protracted but still infectious stage of convalescence which follows. Isolation within the household is very frequently little more than a name, and after the first fortnight or three weeks is rarely attempted, nevertheless it is often found that children from infected houses are going to school up to date of the first visit of inspection, and the parents are too ready to send them again without waiting for the termination of the case and proper disinfection of the premises, clothing, furniture, etc. But for notification, the vast majority of such cases would remain undiscovered and a variety of channels of infection would have remained open. Frequently persons attending on a case of diphtheria or scarlet fever, are to be found serving in clothing, provision, and even milk shops without any precautions whatever against transmitting infection. Many severe epidemics have been traced to this reprehensible carelessness."

The above extracts from the Nottingham report, illustrative of the benefits derived from enforced notification, are in complete harmony with other reports from numerous English health officers where like preventive measures are in force, and most certainly triumphantly vindicate the action of the Government of Ontario in the recent Health Act whereby similar measures against the spread of contagious diseases are made obligatory. It is of course to be well understood by municipal officers, that the work of subsequent disinfection of the house and premises in which a case of infectious disease has occurred is not to be left to the untrained, as in that case it may prove totally ineffectual, but to be conducted by a sanitary officer thoroughly versed in the process whether by sulphurous acid fumes, chlorine, heat or bichloride of mercury.

A want of vigilance in dealing with contagion is a necessary result of the non-existence of a proper sanitary service, Provincial and local, armed with the requisite statutory powers, and with sufficient means at their disposal for carrying out the several enactments. Given all these, notification becomes a prime factor in the work of sanitation. In the instance of the poor prompt isolation can be provided for, the thorough removal of all foci of disease can be accomplished, and then the specific germ finding little material to work upon, the safety of a district from a serious epidemic may be almost guaranteed. We had an illustration of the truth of this two years ago in Montreal. For months the Local Board of Health worked most heroically but fruitlessly in their attempt at suppressing smallpox, not by any means from a want of intelligent and well-conceived measures for accomplishing the object in view, but simply from the lack of Provincial executive power. To meet the exigency, a Provincial Board of Health was established, the members of which were advanced sanitarians and furnished with whatever funds they required, as also the necessary mandatory powers for stamping out the disease. Thus armed, but a short time elapsed before the city was released of the incubus. Unfortunately with the cessation of the plague, or very shortly after, the Provincial Board of Health ceased to exist, a very much to be regretted occurrence, not only for the Province of Quebec, but for the entire Dominion. We know that the progress of cholera has been towards the sea ports of the Argentine Republic and of the Gulf of Mexico, and that from these ports there are many steam and sailing vessels bound for New Orleans, New York and other ports adjacent to our boundary lines, also to European ports with which we have commercial relations; there is consequently a possibility of the disease finding access to our Dominion. We have, it is true, at the quarantine station, at Grosse Isle, a most vigilant officer in Dr. Montizambert, who, so far as he may be armed with authority, will do all in his power to prevent the introduction of cholera or any other infectious disease, but it must be remembered that there are many other avenues, and that in the absence of a Provincial Board of Health for the Province of Quebec, there would be absent the requisite executive power for establishing, if need arose, a thorough system of inland quarantine along the line of railway travel. Let us hope, therefore, that the Government of Quebec will realize the danger, and not wait until a dreaded disease has found a footing on our shores before they re-establish the Provincial Board, not for meeting a particular danger, but permanently.

In evidence of what may be accomplished in limiting cholera, I quote a passage from Dr. Thorne Thornes' report of the incidence of the disease in 1885, when it first affected Spain: "Comparison between Gibraltar and the adjoining Spanish town of Linea, shows that with a population of 24,000 persons in Gibraltar, the cholera deaths amounted to twenty-three, whereas in the town of Linea, with only half as large a population, no less than 194 fatal attacks occurred. Owing to the impracticability of preventing communication between Linea and Gibraltar, no measures of land quarantine or other restrictions on the movements of the population were attempted. The limitation of the disease in Gibraltar being clearly attributable to the strict sanitary administration and the system of inspecting and advising, uniformily pursued."

In view then, of the possibility of the introduction of cholera, boards of health, Provincial and local, should give special attention to the condition of dwellings and surroundings, to the character of the drinking water supply, to the objectionable system still adopted in certain places for the removal of night soil, to the continuance of private slaughter-houses amidst the homes of the people, to the state of the sewers, and adoption of permanent arrangements for the regular and systematic flushing, to a proper connection of house drains with the main sewer, to stringent municipal plumbing regulations, to a proper system of ventilation of dwellings and public buildings, to the condition of lanes and destruction of garbage. All of these points have from time to time been brought by our Board to the notice of Local Boards, and on some legislation has been obtained. But as this has been usually permissive only, and the changes required have involved, in many instances, a considerable outlay of money, or have been viewed as likely to create great opposition on the part of the tradesmen concerned, the unsatisfactory and in many cases most dangerous condition to public health still continues. The Local Board of Health of this city has repeatedly sent for ratification to the Executive Committee a much needed Bill for the registration of plumbers, but as yet, I believe, no action has been taken by the Council. Our Board has also suggested that in this city, where so many balloon buildings are springing up like mushrooms, and a number of new houses in the neighbourhood of factories, would, from their general appearance, seem to be of imperfect construction, that there is urgent necessity for legislation providing for their compulsory inspection and registration. To workingmen the rigorous execution of sanitary law is not only a question of health, it is a question of wages, because the stronger the workingman the less he is stricken down by sickness, and the more wholesome his dwelling, the more wholesome the surroundings in which his wife and family are living, the more he will be able to minister to their support. The new Chancellor of the Exchequer, the Right Hon. George Goschen, in one of his speeches during the political campaign in 1885, says:—"I certainly believe that we may put down the increased health and strength of the population as an asset secured by the labour bestowed and the expenditure made, and that we have thus by this sanitary legislation increased even the material resources of the poor, for if the workingman by such sanitary methods is saved twenty days' illness on an average in the year, he has increased his wages by a proportionate amount, and thus added an increased asset in the national balance sheet."

I have somewhere noticed a remark of Captain Douglas Galton, that if legislation is not to be ridiculous, it must be accompanied by increased knowledge in sanitary matters on part both of the persons charged with administering the sanitary Acts, as well as the people themselves. Recognizing the truth of this remark, the members of the Provincial Board have in a variety of ways endeavoured to disseminate increased knowledge of the laws of health. This endeavour, we have reason to believe, has been attended with a very fair measure of success, as evidenced by the large number of municipalities in our Province that have since the first establishment of our Board, created Local Boards, also by the large membership of the Association of Medical Health Officers, first organized last October. In the Hon. A. M. Ross we have, if not in name, for all intents and purposes a Minister of Health, ever ready to assist us in procuring from the Legislature reasonable sanitary enactments, but frequently enforcing the propriety of hastening slowly, of educating the people until the time comes when our requirements will be received as reasonable, and no parliamentary committee will have the heart to refuse them. Acting

on this basis, our Board will continue the work of disseminating sanitary pamphlets, reports, etc., and in time let us hope that sanitary legislation will be the most popular legislation submitted to the House.

All of which is respectfully submitted.

C. W. COVERNTON.

REPORT ON THE QUARANTINE STATION AT GROSSE ISLE, P.Q.

To the Chairman and Members of the Provincial Board of Health.

GENTLEMEN,—Having recently spent three weeks at the Quarantine Station at Grosse Isle, a brief report of the regulations recently issued by the Dominion Government for observance by masters of all ships coming from infected ports, as also of all vessels on which during the voyage cases of contagious disease have occurred during their transit to the port of Quebec, will, I conceive, be found of great interest to the members of this Board. These regulations bear the date of the 18th of July, but I assume owing to delay on the part of the Government printers, were only received by Dr. Montizambert on the day I left the Station, the first week in August. In a letter recently received from Dr. Montizambert, I am informed that instead of the vessels passing the Quarantine Station without stopping for inspection—a matter of daily occurrence during my visit—all but the mail steamers that obtain their clearance at Rimouski, now remain for examination, that a day and night service is now in operation, the duties of the latter alternately performed by Dr. Montizambert and his recently appointed assistant, Dr. Coote. The following extracts from these new regulations will suffice for convincing the residents of our Province that the danger of introduction by the port of Quebec of contagious disease is now reduced to a minimum :—

4. Any person or persons ill with cholera, smallpox or other infectious disease, as defined in the quarantine regulations of May 23rd, 1868, shall be landed at Grosse Isle for treatment, and the vessel disinfected and allowed to proceed or be detained in such a manner as may be deemed expedient by the medical officer for the protection of the public health.

5. No steerage passenger shall be allowed to pass the inspection stations, that is, Rimouski for the mail ships, and Grosse Isle for all other vessels, without furnishing evidence to the satisfaction of the quarantine medical officer of having been vaccinated within seven previous years, or having had the smallpox within that period ; and in case when the smallpox has occurred in any vessel during the voyage, this regulation shall also apply to every person on board. The production of a certificate by a ship's surgeon called a "protection card," and his testimony, under oath, verifying the truth of such certificate, may be taken by the quarantine medical officer as evidence of such vaccination and protection. The quarantine officer, however, shall from time to time make personal examination of holders of such certificates to satisfy himself of the manner in which they have been issued.

6. Any person to whom the definitions in the next preceding section would apply as not having shown satisfactory evidence of having been vaccinated within the seven previous years, or having had the smallpox within that period, in accordance with the requirements of such section shall be vaccinated by the examining quarantine officer, or in the event of refusal shall be landed at Grosse Isle, subject to a quarantine of observation, and the expense of the maintenance of such person during quarantine observation shall be a charge against the vessel.

7. The quarantine medical officer at Grosse Isle or Rimouski shall examine any officer or surgeon or medical man of any steamship or sailing vessel under oath, touching the state of health of such ship or vessel and of every person on board in such form as shall be prescribed by the Minister of Agriculture, and it shall be the duty of the pilot

on each such steamship or sailing vessel to hand to the ship's officer or surgeon a printed copy of the questions required to be answered under oath.

8. Every steamship or sailing vessel arriving with infectious disease shall be liable to be detained at the quarantine station for disinfection, together with its cargo and passengers and crew, but every steamship or vessel provided with one isolated hospital for men, and another for women on the upper deck, ventilated from above, and not from the door only, may, in the discretion of the quarantine medical officer, if he is furnished with satisfactory evidence that such hospitals have been promptly and intelligently made use of, be allowed to proceed after the landing of the sick and the disinfection of such hospitals; any vessel, however, arriving with infectious disease without having such special isolated and ventilated hospitals, or having them without satisfactory evidence that such hospitals have been promptly and intelligently made use of, shall be liable to be detained for disinfection at the quarantine station.

9. The master of every steamship or sailing vessel arriving from any port outside of Canada shall produce a certificate of quarantine inspection and clearance from Rimouski, in the case of mail steamships and from Grosse Isle in the case of all other vessels before being allowed to make a customs entry at the port of Quebec or Montreal.

10. A second quarantine inspectien shall not be held to be necessary at Quebec, but in the event of the inspecting physician there in pursuance of his port duties finding infectious disease, as defined in Scction 4 of these regulations in any steamship or sailing vessel, he shall promptly order it to go back to Grosse Isle.

11. Every steam or sailing vessel from any port outside of Canada arriving at any regularly organized quarantine port having quarantine station, that is to say, at Halifax, Pictou, Hawkesbury or Sidney, Cape Breton, in the Province of Nova Scotia, or Charlottetown, in the Province of Prince Edward Island, or Victoria, in the Province of British Columbia, shall be subject, in so far as they can be made, to apply to the foregoing regulations relating to the St. Lawrence as respects inspection by quarantine medical officers of the several ports or harbours, before being allowed to make a customs entry; and any vessel which it shall be considered necessary to detain, shall be dealt with in accordance with the quarantine regulations of 1887 aforesaid.

12. At every other port in Canada at which there is not a regularly organized quarantine station, and at which the collector of customs is authorized, by the proclamation of 21st January, 1873, made in pursuance of Act 35 Victoria, Chap. 27, such proclamation being continued in force by Section 11, 49 Victoria, Chap. 68 of Revised Statutes of Canada, the collector, in the case of any steamship or sailing vessel arriving from any port known to be infected, and of which notification is published in the *Canada Gazette*, cause a medical inspection to be made of such vessel, and shall not grant a customs entry, except on the production of a clean bill of health after such inspection.

15. Rags coming from countries or ports in which infectious diseases prevail as defined in Section 4 of these regulations, the names of such countries or ports being from time to time published in the *Canada Gazette*, shall be prohibited from landing at any port in Canada, but rags collected in countries which have been free from the prevalence of such infectious diseases during the six months prior to the shipment of such rags, shall be admitted without any special treatment, if accompanied by a proper evidence of origin.

16. Hours of day service at quarantine station shall be between sunrise and sunset —excepting at Grosse Isle, where inspection will be made during any hour of the twenty-four.

17. Every pilot shall be furnished with printed copies of these regulations, one of which it shall be his duty to hand to the master of every steam and sailing vessel coming from a port outside of Canada immediately after going on board of such vessel, under a penalty not exceeding two hundred dollars.

Every collector of customs or master of steam or sailing vessel charged with putting into effect or having any duties in connection with the foregoing regulations, shall be liable to a penalty not exceeding four hundred dollars and imprisonment until such penalty is paid, for any contravention of such regulations or for omission or neglect of duty in relation to them.

The above are the most important of these recently issued quarantine regulations, and will, I think, be held by the members of this Board as the best calculated for protecting our Province from invasion of infectious disease In order to obtain a satisfactory knowledge of the quarantine practice prevailing in British Columbia and of the disinfecting appliances there in use, the Acting-Deputy Minister of Agriculture contemplates, I have heard, making with Dr. Montizambert, an inspection of the quarantine ports of that Province and providing similar means to those now in use at Grosse Isle. In relation to these at the latter station in my letter to the *Mail* and *Globe* last month, I commented on some particulars of the process now in use there.

1st. That the sulphur-dioxide blast apparatus should not be on the quarantine steamer, but placed at the end of a deep water wharf, where more space could be given and the danger of the steam launch lying alongside the ship being by the motion of the waves, set on fire.

2nd. That the engine placed in the steam launch was neither of modern construction nor of sufficient power for the purposes required.

By recent letter from Grosse Isle I am informed that the Minister of Agriculture and Acting-Deputy Minister have within the last week made a visit of inspection of the station, and have expressed themselves as highly satisfied with the admirable disposition at the two ends of the island of the various administrative and executive offices and buildings. The Minister considered further the "Hygeia," the steam launch, as too small and weak ; proposed having it lengthened and widened, and made as strong as modern ship building science could make her. With them these contemplated alterations of the inspecting steamer and the carrying out the existing wharf a sufficient length to enable large ships to lay alongside the end where the dioxide-sulphur blast apparatus would be placed, as also a steam washing and drying apparatus, this station may be fairly placed, from its natural position and appliances, as the best on this continent.

The only remaining precaution against possible importation of smallpox into this country, is one that Dr. Montizambert, on the occasion of the meeting last autumn of the American Public Health Association in this city, informed us that the steamship company whose vessels came to the port of Quebec would require, viz.: The holding of a certificate by cabin passengers of vaccination within seven years or revaccination by surgeon of ship, unfortunately became inoperative in consequence of the quarantine officers of some American ports vehemently opposing.

All of which is respectfully submitted.

CHAS. WM. COVERNTON.

The subject was further reported upon at a subsequent meeting.

Mr. Chairman and Gentlemen,—At the last meeting of our Board I brought to the recollection of the members the action taken on the last day of session of Convention of American Public Health Association, held in our city in the month of October, 1886, relating to the imporrance of State and Provincial Boards of Health co-operating in their efforts to prevent the spread of contagious diseases by immediate notification of the presence in their midst of any such malady.

That, with the exception of the Local Board of Health of City of New York, all other Local and State Boards in the United States had loyally fulfilled their promises to that effect, but that from the Health authorities of the aforesaid city no reliable information could be obtained in regard to rumours that smallpox for a long time had been

present in certain quarters of the city, the said disease introduced by emigrants from Europe, but its existence denied, or misleading answers given to repeated application for information.

That from this unpardonable reticence on a matter that involved the safety of the people of this continent, and from other more direct sources of information, our Board had reason for apprehending that at the said port of New York very inadequate precautions against the entrance of epidemic disease were in operation, and that as we had sufficient intimation that the danger of cholera being brought to our ports was anything but visionary, it was very desirable that the representatives of our Board at the convention of the American Public Health Association, to be held in the month of November, at Memphis, Tennssee, should be instructed to bring before the assembled State Boards this vitally important subject, two resolutions on this subject were proposed and carried. Dr. Oldright, of the two delegates appointed, was the only one to accept the trust, and from his report of the meeting, as published in one of our city medical journals, we learn that whilst the evidence adduced at that convention on the subject of quarantine prevention was most conclusive, while at the stations of New Orleans, Louisiana, and of Grosse Isle, Province of Quebec, the most judiciously conceived and carefully executed precautions against the admission of infectious maladies were constantly in operation, at the port of New York, where the daily arrival of steam and sailing vessels from all parts of the world was the largest on this continent, a most dangerously lax system there prevailed, which from all the health officers at the convention assembled, met with the most severe condemnation. At this meeting a pamphlet containing a full description of the system of disinfection practised by Dr. Holt, in New Orleans, was circulated among the members, a copy of which was mailed to me by that energetic quarantine officer, and now have the pleasure of submitting to you for inspection.

Three years ago last October, when present at the annual convention of the American Public Health Association, held at St. Louis, Missouri, as representative of the Dominion Government, I obtained from the same gentleman drawings of the fumigating furnace, reservoir, and exhaust fan which, at that time, he had in use at New Orleans, copies of which, on my return, I forwarded to the Minister of Agriculture at Ottawa, recommending an appropriation for a similar apparatus for the station at Grosse Isle. Two months subsequently, Dr. Montizambert was associated with me as Dominion representative at a meeting of the officers of all the States Boards of Health convened at Washington, D.C., when for the first time he had an opportunity of seeing and having explained to him by Dr. Holt a model of the aforesaid apparatus, with which he was so captivated that, by perseveringly recommending it to the Government at Ottawa, he last year succeeded in obtaining, as also a steam launch with said furnaces on board. The objections to the apparatus being on deck of launch I had an opportunity of noticing last summer when on a visit to Dr. Montizambert at the station, and which, in a letter to the *Globe* newspaper sometime in August, I fully described, and also mentioned the imperative necessity for having the western wharf repaired and carried out a sufficient distance to permit vessels, on board of which cases of cholera or smallpox had occurred during the voyage, to ride at anchor in deep water at low tide during the process of disinfection by bichloride of mercury and sulphurous acid gas, as also a building containing superheated chambers for purification of bedding, furniture, curtains, baggage and wearing apparel placed in a Troy laundry situate at extreme end of wharf, also requisite other buildings under same roof or in near proximity for disinfection of other portions of cargo.

The Honourable Mr. Carling, Minister of Agriculture, last autumn visited the station, inspected wharves, hospitals, detention houses, as also the separate buildings in cholera bay, quite distinct and a long distance apart from all the other buildings, and was made fully acquainted with the various requirements for making Grosse Isle Station second to none on this continent. These changes, however, involve a large expenditure of money as also an immense amount of additional labour, viz., greatly increased vaccination duties, and raise the number of vessels to be inspected from twenty to thirty in the season to at least a thousand, as under the new regime inaugurated last summer no vessel can pass the station without obtaining clearance, or if they run past without showing a

light during the night, would be heavily fined and sent back from Quebec to Grosse Isle; thus the work all around the twenty-four hours is greatly increased, for to prevent detention of ships a day and night service, from beginning of April to about first or second week in November, is necessitated.

The large additional grant required, without full information supplied to the public for its absolute necessity, may possibly cause the Government to hesitate in making all the changes as promptly as the protection of the inhabitants of our Dominion, from a visitation of a cholera or smallpox epidemic, unmistakably point to under a less vigilant and thorough system.

The duty of furnishing reasons for the expediency, if only from an economic point of view, of such an outlay naturally devolves upon the two Provincial Boards at present organized in the Dominion, viz., that of Ontario and Quebec, the other provinces, so far as I am aware, not as yet having fallen into line.

Dr. Lachapelle, the Chairman of the Quebec Board, has, I believe, taken the initiative, and I have, no doubt, that at this the first meeting of the present year our Provincial Board will follow suit. Entertaining this belief, I have briefly pointed out the opinions expressed at all the meetings of the State Provincial and International congresses that I have attended for the last five years and six months, commencing at the September meeting of the European International Congress at Geneva in 1882; American International in St. Louis, in 1884; two in subsequent years at Washington; meeting at Brighton in England, August, 1886;—that strictly in principle if not in uniform detail have been insisted upon as the most reliable means of protecting countries from the entrance of epidemic diseases, viz.: the careful segregation of the sick from the healthy, and skilled attention to the work of disinfection under the most approved system.

Dr. Oldright, in his report of the Memphis meeting will still further accentuate the harmony of opinion that there prevailed on this subject.

It can be no matter of question that by the constant vigilance of such health officers as those now holding the position of quarantine physicians at New Orleans and Grosse Isle, Province of Quebec, and similar watchfulness at the various ports from the Gulf of Mexico to Cape Breton, success in preventing entrance of epidemic disease is most likely to be accomplished.

All of which is respectfully submitted.

CHAS. WM. COVERNTON,
Member of Committee on Epidemics.

REPORT OF THE COMMITTEE ON EPIDEMICS AND OF THE SECRETARY *RE* ANTHRAX AT GUELPH.

To the Chairman and Members of the Provincial Board of Health:

GENTLEMEN.—The farmers and people generally in Guelph and its vicinity have, as will be seen by the following letters, been much exercised regarding a disease which, beginning last summer, has again broken out with fatal effect amongst cattle pasturing on the river flats along the Speed and below the city of Guelph. These flats, which in many parts are flooded in the spring time, receive the drainage from the town by the more westerly branch of the Speed, as also the waste waters from several mills and factories emptying into the river after its branches have joined.

Prof. Grenside, of the Veterinary Department of the Agricultural College, last year treated, as stated in his letter, several animals that died, and in a letter to the *Mercury* has well set forth the character of the disease as seen and understood by him. Mr. D. McCrae, manufacturer, Guelph, first communicated the facts to me regarding the

disease, and enquired what steps, if any, should be taken by the Local Board of the township in which these cases occurred—his father, Thos. McCrae, Esq., chairman of the Board, being ill. I answered him to the following effect, and stated that I would endeavor to visit the district at an early date. I visited Guelph on the 16th ult., and with Mr. McCrae and Prof. Grenside, visited the flats, and interviewed Mr. Parsons, who had been a heavy loser last year by the disease, and who, unfortunately, with his partner, Mr. Harvey, contracted the disease through skinning a dead animal and aiding Prof. Grenside in making a post-mortem. A weed (probably wood-nettle), with stinging hairs, grew about the spot, and stung their arms, and it is assumed that by these wounds the empoisoned blood affected the two gentlemen. Prof. Grenside strangely enough escaped inoculation. Mr. Parsons was very ill, and bears scars of the pustules upon his hands and arms still.

The facts regarding the cases are much as stated in the two letters, and all that I have learned coincides with the statements made by the best authorities regarding the particulars of the disease. Accepting Prof. Grenside's opinion as to the character of the disease, we find just such anomalies in its appearance as are found in European countries.

Anthrax in Great Britain.

The following quotations on the subject are from the Report of the Agricultural Department of the Privy Council :

"First it may be stated positively that anthrax is not infectious, that is to say,

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To the Editor of the Mercury :

DEAR SIR,—Between the old Budgeon Farm and the Edinburgh Road, along the river flats, for the past two seasons there has been a mysterious fatality among the cattle.

Last year Mr. Harry Dawson was a considerable sufferer, as also were Messrs. Parsons and Harvey. I cannot give you from memory the exact numbers that each person lost, but I should say that between thirty and forty animals died, and in addition to the parties above, Mr. O'Boyle, Mr. Felix Delvin, Mr. Brisbin, Mrs. Pinder, Mr. Sleeman, Mr. Wilhelm and Mr. Simpson, all lost cattle, Mr. O'Boyle several horses and Mr. Brisbin some valuable pigs. This year Mr. Hilborn, who has the field occupied last year by Mr. Pinder, has lost four head, and Mr. Dawson has lost no less than eight within the last few weeks. Mr. Brisbin and some other person have lost a horse each. I have not heard of any others. The disease seems to act very rapidly ; in most cases the animals have died within a few hours of being taken sick, and so far the veterinaries have been puzzled, for although they have been called in they were powerless to save the animals, and nothing has been done to arrest the disease. Several carcases have been opened, but apparently to no purpose.

Both Messrs. Parsons and Harvey were affected from handling their cattle and were ill for weeks from blood poisoning, and Mr. Dawson's hired man is now suffering in the same way.

The disease in most cases seems to take the form of a running black throat, with lumps breaking out through the neck. One of the persons openly stated his belief that his animals had been poisoned, and did not hesitate to name the offender, but this I cannot believe, as surely there could not exist a fiend who would deliberately destroy a lot of valuable animals for the purpose of wreaking a paltry spite against one individual.

I think the cause must be sought in some poisonous plant or parasite, perhaps more fully developed by the extreme heat of the last two summers, or else in the water which is being drunk by these poor creatures, being contaminated by poisonous chemicals, which, it is an undoubted fact, find their way into the river, but whether they are sufficiently powerful as to affect such a large body of water to such a distance it is impossible for me to say. The facts are sufficiently alarming to call for the immediate and thorough examination into the disease with a view to ascertain the cause, and if possible to pro-

animals in contact with others which are diseased do not suffer unless some of the blood or tissues of the diseased animals enter their blood. Even eating food containing the germs of the *bacillus anthracis* appears to be insufficient to induce disease unless there are abrasions in the mucous membrane of the digestive organs through which the spores can enter the blood stream."

"Anthrax exists on the continent of Europe and in many parts of the world in a much more virulent form, and spreads more rapidly than it does in this country.

"In France the annual losses among sheep are estimated at 30,000,000 of francs. Under these circumstances it is evident that we are exposed to the risk of the introduction of the disease by the agency of various products which may carry the spores of the bacillus anthracis. Wool, skins, fodder, litter and manure are the most likely to be infection carriers, and it is obvious that we are entirely without the means of protecting ourselves against the sources of danger, unless we could adopt the policy of prohibiting the introduction of all the substances referred to from any foreign source.

"No better illustration of our want of power to protect even human life from a known danger from foreign products, can be adduced than is afforded by the history of the "wool-sorter's disease," which is now ascertained to be anthrax, due to the introduction of the spores of the bacillus anthracis into the blood during the process of sorting the wool. Nothing can be more simple than the explanation of the origin of the affection. Bales of foreign wool are made up of wool clipped from the living sheep, shorn in the usual manner; but they also contain sometimes wool clipped from skins

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vide a remedy, and I write this letter to you to draw the attention of whatever authority is the proper one to deal with it. Whether the Board of Health would consider it within their province to take the matter up or the Dominion or Ontario authorities would act I cannot say, but it struck me that with a staff of scientific Professors at the Agricultural College, if they were to devote themselves to discovering what is wrong, they would do their neighbors incalculable good and obtain considerable *kudos* for themselves as well as reflecting much credit on the institution to which they belong.

I apologise for the length of this letter, but think the importance of the subject warrants its publication.

Yours truly,

FRED J. CHADWICK.

Rockmaple, July 30, 1887.

P. S.—Since writing the above I learn that Mr. Dawson lost a valuable mare with precisely similar symptoms.

DR. GRENSIDE ON THE FATALITY AMONG CATTLE.

To the Editor of the Mercury:

SIR.—As Mr. F. J. Chadwick has drawn public attention to the fatality among the cattle and horses along the river banks, in the vicinity which he lives, a few remarks from a veterinarian may not be out of place.

There is no doubt that this local outbreak has been a serious one, as considerable losses have resulted from it; but it is also certain, that a number of the animals that have died in that vicinity during the last two summers have not been the victims of the particular disease that constitutes the chief cause of alarm.

I have attended and made *post mortems* on a number of the animals that Mr. Chadwick refers to as having died, and can testify to the cause of their death being entirely different in some cases to the disease that has caused the major portion of the trouble, viz.: anthrax.

A number of the cases that I had an opportunity of examining *post mortem*, and a number that I have not, have no doubt died from the malignant malady generally termed Anthrax.

or from dead sheep, some of which died of anthrax. It is only required that a little blood from a sheep dead of anthrax should be on the wool and such contamination could hardly be avoided, and the wool sorter who happens to have a scratch on his hands while he is engaged in picking it, infects himself with anthrax.

"An outbreak of wool sorter's disease at Bradford some years ago excited a good deal of attention at the time on account of the appearance of anthrax among cattle, which were feeding in a meadow, to which flowed the washings of the wool factory, where the wool sorters suffered from the same disease. In consequence of this occurrence it was suggested as a means of preventing the communication of the disease from foreign wool, that the Privy Council should prohibit the landing of wool from diseased animals. If the suggestion had been well considered by its authors, it would never have been offered, as it must have been perfectly obvious on reflection, that the Privy Council have no means of enforcing such an order. Possibly the introduction of infected wool into the manufacturing districts might be to some extent prevented by inspection at the landing places; but that expedient would merely divert the risk of wool sorters disease from the factory to the ports.

"Anthrax occurs periodically in some districts, and even on certain farms or particular pastures. Sometimes a single animal of a large herd will be attacked, and succumb in a few hours, and the disease will cease, only to reappear after some months or years have elapsed. In some instances the affection implicates a large number of animals before it ceases. Occasionally all the live stock of the farm, including horses, which are not very susceptible to the disease, have been destroyed. It is therefore impossible, when an outbreak of anthrax occurs on a farm, to determine what course it is likely to take, or what proportion of the stock have incurred the danger of infection. Generally, however, the disease does not extend beyond the farm on which the outbreak occurs.

"In regard to the origin of anthrax, it is generally very difficult to select from the number of possible agencies those which are most likely to introduce the disease. When

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Anthrax literally means a boil ; the name was derived from the manifestation of this disorder in man as malignant carbuncle. This name is in pretty general use throughout the world, but is not such a happy designation as *Charbon*, the term used by the French, for the local lesions are usually of a coal black hue.

There is no specific disease that has such a wide range of subjects, for no animal from man downwards seems to be insusceptible to its baneful influence.

Another peculiarity is the variety of forms in which it manifests itself; sometimes showing itself chiefly in connection with one organ or set of organs and sometimes with another.

One of its commonest forms is Splenic apoplexy, in which case the spleen becomes engorged with blood of a black color, and tarry consistence.

Then there is *Enteric Charbon*, when the bowels are the chief seat of trouble.

The tongue is also the seat of the chief local lesion, in other cases constituting Gloss-anthrax ; and the lungs in some lingering instances have been found affected.

Black Quarter or Quarter Ill was looked upon until recently as being another manifestation of the same disorder ; but although there is a close resemblance in some respects still it differs in the important respect that the essential cause is not identical in both cases.

I do not intend to ask for space to give the symptoms, as the cause of the malady and its prevention are the most important points to dwell on.

Mr. Chadwick asks the attention of the Faculty of Agricultural College to investigate this trouble, but this is quite needless, for there is no specific disease, of which every particular is understood more thoroughly, than the one we are treating of. Centuries have been spent by the foremost scientists of the world in investigating it, but it is only of recent years that all its mysteries have been unravelled; and now veterinary literature is teeming with accounts of it.

The essential element in the production of Anthrax is a minute vegetable organism, which from its rod or staff-like form is called a *bacillus*. This, gains access to the

it is known that every article of food, water, litter or manure may contain the spores of the bacillus, and that worms may bring them to the surface from a carcase which has been buried for years, it becomes evident at once that the enquirer has a very critical and delicate investigation before him, in which the chances of success are rather remote.

"Anthrax is not a disease which can be eradicated like most animal plagues by the adoption of the stamping out system. Diseased animals die so quickly that nothing would be gained by slaughter, and those in contact with them frequently escape the disease."

On the outbreak we are considering there are a number of points of practical interest from the public health standpoint.

From the extended reports of investigations into "Wool-sorter's Disease, or Anthrax," found in the tenth report of the Local Government Board for Great Britain, it is made apparent that in the large centres of the woollen industries there the disease has become one of such importance as to demand special regulations, made with a view of protecting the wool sorters.

These investigations made it apparent that the dangers are wholly from foreign wools from the Cape and eastern parts, as of Turkey and Syria.

To the degree that these are used in Canadian factories, the persistent vitality of the spores of the *anthracis bacillus* makes the danger a positive one here as elsewhere. The fact that there are in Guelph woollen factories which to some extent use foreign wool; and further, that the washings find their way into the Speed above the infected flats, naturally make us suspect these as the carriers of the disease, if anthrax it be.

As however, there have been, as far as I could gather, no cases of wool sorter's disease there from handling wool, it would be unwise to draw inferences which we are not in a position to verify.

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system, which is possible through an abrasion on any part of the body, as in inoculation; or it can be conveyed into the circulation by the digestive tract—the usual channel—all going to show that it cannot be breathed in, as the germs of some diseases can; it now reproduces itself, and causes fermentation of the blood, which it so alters in character that it becomes incapable of supporting life. This organized poison acts very rapidly, for those that have made experimental inoculations testify that usually death is brought about in from twenty-four to forty-eight hours.

This organ has two ways of reproducing itself. In a living being it increases by dividing into two parts, these two parts then sub-divide, and so on, rapid increase taking place. Outside of a living body, and where a bacillus has food to use, little spots are observed to form within its coat, and arrange themselves in rows like peas in a pod, and when they are ripe the covering membrane bursts, and frees these atoms of matter, which are the spores or seeds. These spores being taken into a suitable host become bacilli. Bacilli spores are extremely tenacious of life, prolonged drying won't kill them, and Pasteur says they will withstand boiling.

The next practical point is how did the germs of this disease get along the river flats.

In the present stage of science we can hardly urge the almost exploded theory of spontaneous generation. I have already stated that all the particulars in connection with this disease have been explained, but this point is an exception, and we cannot tell where the seeds of anthrax are and where they are not; but observation has determined under what conditions they usually become active agents for doing harm.

Our experience in this country with this disease amounts to a mere nothing, when compared with the countries of Europe. From all accounts as great losses have been sustained in a week's time from this disease in France alone, as in this Province during twenty years. In France it is stated that a very warm summer is never seen without *Charbon* being prevalent, and that it occurs on land that has been inundated, and then become dried up from prolonged dry weather.

From personal investigation of the methods of cleaning the wool there, one may fairly conclude that, apart from the fact that man is one of the animals which have a considerable immunity from the disease, the cleaning of the wool by a fan and by subsequent washing, has so far been proved efficacious in preventing cases of anthrax amongst the sorters—if in any instances its germs have been present in the wool.

From the veterinary and agricultural standpoints, the question has wide bearings and deserves further consideration. The sudden and quickly fatal onset of the disease makes it possible that the disease will be spread to persons, either through milk or meat.

To obtain positive information, however, on the subject of the true nature of the disease, it is most desirable that in addition to the clinical facts already supplied by Prof. Grenside, a biological examination of the disease be made, and I would recommend that this Board authorize its committee on epidemics to obtain samples of blood should any further cases occur, and take such measures for its culture and examination as will put the Board in possession of the actual facts.

I have the honour to be your obedient servant,

P. H. BRYCE,
Secretary.

The history of last summer's as well as this summer's mortality along the flats of the river shows that these conditions existed.

Proof that these particular bacilli are the cause of anthrax has been most satisfactorily shown, as the following test will show: A drop of blood, or other fluid tissue taken from an anthrax subject, and that contains the bacilli is placed in some suitable nourishing material as beef tea, and allowed to stand for a time, the bacilli will have increased in numbers. A drop from this is then taken, and placed in a similar fluid, when the bacilli soon multiply; this can be carried on for any number of times until say twenty cultivations have been made or twenty fresh generations of the organisms produced. Although only a small drop is passed from one lot of cultivation fluid to another it suffices to fertilize it. Now if a drop is taken from the twentieth cultivation fluid and an animal is inoculated with it, it will produce the identical disease; and if the blood of the inoculated is examined microscopically, it will be found to contain the characteristic bacillus. This certainly is undoubted evidence that these bacilli are the essential element in the production of this disease.

The great French scientist, Pasteur, conceived the idea that the bane might be made its own antidote. So he went to work, and by particular processes weakened the virus, so that although it would produce disease, it did so in such a mild form when inoculated, that no ill effects resulted; and when a subsequent inoculation of the deadly poison was made, in an animal so treated, it was found to be immune, as no derangement of health was manifested. When Pasteur made the announcement of this discovery, it was not accepted until he gave a public demonstration of its accuracy. A number of scientific men were chosen by the Academy of Sciences in Paris to watch the experiment.

He was given fifty sheep, twenty-five to receive protective inoculation with the weakened poison, and the other twenty-five to receive no vaccine as he termed it.

After sufficient time had been allowed the whole fifty were inoculated with the strong poison. His success was complete, the twenty that had been protected appeared to experience no ill effects, while those unprotected or not vaccinated all died.

This was considered conclusive proof of the efficacy of the method, which became generally adapted in practice, and is said to have reduced the death rate by forty per cent. amongst the sheep of France. It was also successfully applied to cattle.

Medicinal treatment has always been found very unsatisfactory, no good effects resulting from any known medicinal agent.

In the present outbreak the only practicable means of prevention is to remove the cattle from the source of infection. If cattle were not allowed access to these flats,

On the receipt of the following :

GUELPH, Aug. 23rd, 1887.

MY DEAR BRYCE,—I am sending you by this mail a vial of blood taken from another anthrax victim that died lower down the river. The spleen was filled with tarry-like blood, and was ruptured, a considerable quantity of blood having escaped from it into the abdomen. We noticed the blood as soon as we cut through into the abdomen, but could not find where it had come from until we examined the spleen.

This blood is what escaped into the abdomen. I imagine I detected the existence of bacilli in it. Kindly let me know the result of your observations, and oblige,

Yours sincerely,

F. C. GRENSIDE.

I made arrangements for an examination of the blood. The following is the report thereon :

To the Provincial Board of Health of Ontario.

GENTLEMEN,—In accordance with the request of the Committee on Epidemics I have made a careful examination,—biological and experimental, of the blood received from Dr. Bryce, the Secretary of your Board, which was sent down from Guelph, and can without hesitation after my investigation pronounce the blood to have contained the spores and rods of the disease known as anthrax or splenic fever.

Taking a small quantity of fluid from the vial on a sterilized platinum point I made a microscopical examination and detected in addition to blood corpuscles, two varieties of bacteria,—in both cases *bacilli*, the one with rounded ends and possessed of great activity, and the other bacterium somewhat thicker with square cut ends, without molecular movement. The former variety corresponds to the bacteria, always present in decomposing blood, and the second variety were as the sequel proves the bacilli of anthrax. I inoculated three rabbits with the fluid in the vial, two kittens and two guinea pigs. With a pair of scissors I removed the hair from a small portion of the skin of the back, and after having washed the cleared surface with a solution of corrosive sublimate (1-1000), in most of the animals, I took a lancet which had been thoroughly sterilized in the gas flame, and made a pocket beneath the skin. Into this I passed a platinum point which was covered with a minute quantity of the suspected blood. Two of the rabbits, on the second day appeared languid with loss of appetite, but the following day they were again lively. The seat of inoculation of the third rabbit was on the second day red and tumid,—the condition passed away in three days (five days after infection). The kittens remained free from all indisposition.

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which have proved so dangerous, during the dry weather, the chances are there would be no losses to record.

In two cases last year I recommended removal of the cattle to other fields, but the owners hesitated about following my instructions, on account of the scarcity of feed ; but they were soon forced to do so by additional losses, and as soon as the change was made there was no more trouble.

It is a matter of extreme importance to dispose thoroughly of the carcases. It has been found that even where they are buried deeply that the seeds of the disease are carried to the surface by worms, and act as a source of contagion for years afterwards.

The most effectual plan is to burn the dead animals, but thoroughly covering with a thick coat of quick-lime, and burying deeply is the next best.

I am sorry I could not make a satisfactory explanation of this trouble without taking so much of your space.

Yours truly,

F. C. GRENSIDE, V. S.

One guinea pig died in eighteen hours, and on making an examination of the body I found the lungs congested; there was a quantity of serum in the pleural cavities,—there was no tumor or redness at the point of inoculation at any time. I examined the serum of the pleural cavity in stained and fresh preparations under the microscope and observed some short rods, and a vast number of thread-like bodies. Specimens were also made from the blood of the heart and liver, and organisms were seen similar in shape to the shorter ones noticed in the serum. A second guinea pig was then inoculated with the serous fluid taken from the one just dead, and it died in sixteen hours. A similar condition of the internal organs was seen on opening the body. A third guinea pig was then inoculated from the second, and it died in ten hours. One of the guinea pigs first infected showing no evidence of disease, its blood was examined, and as no organisms were detected it was re-inoculated from the blood of the third guinea pig which had succumbed, and when in a dying condition (twenty-four hours later), the blood was again examined and micro-organisms were readily seen which corresponded in all details to those noticed in the fluid taken from the vial. Although the virus had passed through a series of four animals its appearance and also its action had in no way been modified.

Two medium sized potatoes were selected and after washing them in water they were soaked for fifteen minutes in a solution of corrosive sublimate, rinsed in water and placed in a steam sterilizer for half an hour until cooked,—they were then removed and inoculated with fluid from the vial after the manner recommended by Koch, and given in detail by Hueppe.* A very characteristic growth resulted from the inoculation of these sterilized potatoes in two days, —a light yellowish layer formed over the surface. This on miscroscopic examination was seen to consist of some threads, short rods, and an abundance of spores.

A peptone solution made from Moore and Savory's dry peptone, two per cent. and cane sugar one per cent.† and infected from the vial,—eighteen hours later on examining a drop of the fluid the long rods were again seen.

Nutrient jelly made as recommended by Koch,‡ was used, tubes were inoculated, and prepared plates made. A typically characteristic appearance was obtained,‖—cell slides were prepared, (see Hueppe), and examined under the microscope, when on watching the spores for thirty minutes, after a fresh inoculation of a peptone solution, in one of the cells a commencing formation of rods was noticed. ¶

From the appearance of the spore formation which took place in the cell slides and on potato, from the characteristic growth of the organism on potato, and its typical development in nutrient jelly, from the course of the disease in the guinea pigs, and from the appearance under the microscope of the blood in stained and fresh preparations, I am readily enabled to decide that the disease was anthrax.

It will be plain from the experiments and facts already stated that we have present in the Province a disease which during the past years in France, Germany, and elsewhere has caused widespread loss among the sheep and cattle, which economic loss has been so great as to have caused the Governments of said countries to have instituted the most extensive measures with a view to destroying the disease by protective vaccination. The Government of France has instituted a system by which from Pasteur's Central Laboratory in Paris virus is regularly sent out to experts throughout the country who are required to perform the inoculations in infected districts. The success of the method has been such as to cause me to state that while at present the disease in Canada is localized to several flats along the river near Guelph, it would seem to be the duty of your Board to make such recommendation to the Government as would enable the Board to institute in the

* Die methoden der Bakterien—Forschung von Dr. Ferdinand Hueppe.—Wiesbaden)

† Micro-organisms and Disease by E. Klein, M.D., F.R.S. (page, 19).

‡ The formula is given in full on (page 76.) Pathological mycology by Woodhead and Hare.

‖ Crookshank s Manual of Bacteriology (page 283).

¶ Über den Miltzbrand Von C. Eberth. Sammlung Klinischer Vortrage. Richard Volkman, No. 213.

interest of public health, both as regards men and animals, inoculation experiments upon such latter as are likely to be exposed to infection on the suspected pastures.

I have the honour to be, gentlemen,
Most respectfully yours,
W. H. B. AIKINS, M.D.

To the Chairman and Members of the Provincial Board of Health.

GENTLEMEN,—Your Committee on Epidemics has, as directed at the last meeting, had experiments made with the blood of anthrax victims, and desire to present for your consideration the report of Dr. W. H. B. Aikins, as printed above.

Your Committee would urge the propriety of the Board's adoption of the suggestion contained in the report that the matter of protective inoculation be considered, and that it be referred to the Committee on Epidemics for further action in the premises, and, with the consent of the Minister of the Department, to devise such means as will be most likely to place the matter in the best position for the attainment of practical results as regards the protection by inoculation of exposed animals.

All of which is respectfully submitted,

FRANCIS RAE.
CHAS. WM. COVERNTON.
PETER A. BRYCE.

REPORT OF THE COMMITTEE ON EPIDEMICS *RE* THE OUTBREAK OF DIPHTHERIA IN NIPISSING DISTRICT.

To DR. BRYCE,
Secretary Provincial Board of Health:

DEAR SIR,—In compliance with the instructions contained in your letter of the 29th ultimo, addressed to me at Orillia, I at once proceeded to North Bay and commenced my tour of inspection. Immediately on my arrival I called upon the Rev. Joseph Bloem, P.P., from whom, however, I was unable to elicit any further information than that contained in his letter to yourself. I then called upon Drs. Carruthers, Harvey, and McMurchy, all of whom assured me they had not seen a case of diphtheria in two years, and were not aware of any existing in North Bay or vicinity. I also called upon Mr. John Ferguson, reeve of North Bay and the township of Widdifield, and made enquiries as to whether his council had met the requirements of the Public Health Act of 1884, in organizing a Board of Health, appointing a medical health officer, etc. I found this had not been done, and I urged upon him the importance and necessity of taking immediate steps in the matter in view of the existing unsanitary condition of the village, and the possibility of an epidemic of contagious disease breaking out at any time. The village consists of about 1,500 inhabitants, many of whom are employees of the C. P. R. Company, and their families. These dwell, principally, upon a sandy plain, or intervale, in the neighbourhood of the Railway, which at some former period probably formed part of the bed of Lake Nipissing. There are very few wells in existence, and these are mere holes dug in the sand, and doubtless supplied by the water of the lake percolating through the sand. The majority of the inhabitants are, however, using the water from the Railway Company's tank, which is pumped from the lake, and which is often in a stagnant condition. The higher portion of the village, to the north of the railway, is built upon a narrow plateau, consisting almost entirely of gneissoid rock. Everywhere may be seen the rock cropping out at the surface, and where the rock is not seen, it is hidden by merely a very superficial covering of earth. I was informed that in wet seasons the depressions everywhere became filled with water, which soon became stagnant. No provision has as yet been made for drainage. Notwithstanding this, however, the place has so far been remarkably exempt from zymotic diseases, but this must certainly be due rather to the healthfulness of the climate than the sanitary condition of the village;

and unless some means be adopted for securing some system of drainage and a better water supply, their present immunity from contagious diseases cannot long continue, as the place is growing rapidly. I supplied the priest, reeve and physicians with copies of the pamphlets, all of whom expressed their appreciation of it and promised to make a good use of them. I also supplied the priest with disinfectants and some of the more simple remedies to be used in the treatment of diphtheria, as in his missionary tours through the more remote districts he not infrequently comes in contact with the disease, and as he is a man of excellent education and more than ordinary intelligence, I feel confident that in acceding to his request for them I was not making a mistake.

I then proceeded to Powassan, a scattering hamlet of about 150 or 200 inhabitants, 22 miles south of North Bay. I at once called upon the leading man of the place, Mr. Wm. Clark, a merchant, etc., who corroborated the information given by the Rev. Father Bloem as to the four fatal cases in one family two weeks before; and from him I learned the following additional particulars: Alfred Mitchell, a settler, living near the village, had been working at a sawmill in Gravenhurst, when he was taken ill, and returning to his home complained of sore throat, etc.; but as no medical man was within reach, the nature of the disease was not discovered. A few days after his return, his eldest child, a little girl of about nine years, complained in the same way, and on the following day another was down with the same disease. On the day following, these two died, and the only two other children in the family were ill from the same disease. Dr. Toole, of Sundridge, was sent for, but only arrived a short time before the death of the two last, which occurred within a few minutes of each other and just as the father had returned from burying the first two. The neighbours had suspected the nature of the disease, and had been very cautious about carrying on any further communication with the house than was absolutely necessary. They had been burning sulphur and using carbolic acid freely. Dr. Toole confirmed their suspicions as to the nature of the disease; and as it happened that there was an epidemic of catarrhal cold, with slight inflammatory sore throat, prevalent at the time, a panic ensued, as every one who was at all unwell imagined they were the victims of diphtheria. For some days the excitement and anxiety were intense, but as nobody died and recovery soon took place, the panic soon abated, and when I reached there the health of the community was good, and every one was rejoicing that the disease had not spread beyond the family where it appears to have originated. The inhabitants of the place, and Mr. Clark in particular, seem to be very intelligent and fully alive to the importance of sanitary measures, and only too willing to carry out the instructions given them. I distributed a number of the pamphlets, which they seemed to appreciate very highly, and expressed their thanks to the Provincial Board of Heath for the interest taken in them. I left with Mr. Clark a supply of disinfectants and some remedies for the treatment of diphtheria, should any other cases occur, as they are situated so far from medical aid, the nearest physician to the north being 22 miles and to the south 25 miles, and these are not always to be had when sent for. I am confident a good use will be made of the medicine should necessity arrive.

I next visited Sundridge, a village of about 500 inhabitants, twenty-five miles south of Powassan and forty-seven south of North Bay. I was informed by Dr. Toole, the local practitioner, that he had been nearly two years in the place, and had not as yet seen a case of diphtheria in the village; but a few weeks ago he had eight cases in one family living about four miles distant, two of which were fatal. The origin of this outbreak was as follows. A member of the family, a married daughter, had been living on Cockburn Island, Lake Huron, and diphtheria was epidemic in the neighbourhood in which she lived. She returned home on a visit, and before she arrived she was taken ill of diphtheria, and communicated it to every member of the family; but no cases occurred beyond this family. Dr. Toole is of the opinion that the fumes of burning sulphur which they had been employing as a disinfectant in the house during the illness of the two last patients had either caused or hastened death. The other six cases, though equally severe, had made a good recovery before the sulphur was used. He also thinks the sulphur fumes had something to do with the fatality in Powassan, as in his opinion, as far as he was able to see and learn, the severity of the cases did not warrant such sudden and unexpected fatality. Dr. Howland, of

Huntsville, confirmed this opinion, and informs me he has had cases occur in his own practice a year or two ago in which he was confident the sulphur fumes had caused aggravation of the symptoms and hastened the fatal issue, since which time he was always very particular not to allow sulphur to be burned in a house where he had a case of diphtheria.

From Sundridge I proceeded to Burk's Falls, and waited upon Dr. Campbell, who informed me that he had not seen a case of diphtheria in that village or the surrounding country for upwards of a year. The village and district are in a remarkably healthy condition, and zymotic diseases of any kind have scarcely ever been known there. A Board of Health has, however, been organized for the village of Burk's Falls and township of Armour, with Dr. Campbell as medical health officer, which has up to the present time remained inactive.

At Huntsville I was informed by Dr. Howland that he had not seen a case of diphtheria for the past three months. During the summer he had seen some mild cases, which had not spread, and none had been fatal. He also informed me that he had at the present time several severe cases of typhoid fever in that village, and that Dr. Harte, the second medical practitioner, had several under his care, but none as yet had been fatal. Otherwise the village and adjacent country had been quite healthy.

At Bracebridge I found Dr. Bridgland had just returned from burying his only son, a little boy of nearly six years, who died the day previous from diphtheria. He informed me that during the past two weeks seven families in Bracebridge had been visited by the disease. In all there had been ten cases, three of which were fatal. He had no doubt he had carried the disease home from a patient he had been attending. As soon as his son took ill he sent the other children, little girls, away from the house, and so far they were quite well. His own case was the last in the village, and at present it is free from it. He had used every precaution both in his own home and those of his patients to prevent the spread of the disease, and was in hopes no fresh cases would occur. There had been no cases in the surrounding country for some time.

At Gravenhurst I called upon Drs. Cornell, Grant and Hooke, all of whom assured me they had not seen a case of diphtheria for some months, and were at a loss to know how it originated in the case of Alfred Mitchell. Gravenhurst has thus been for some time in a perfectly healthy condition.

I left them all copies of the pamphlet, and they expressed their appreciation of them.

I have the honour to remain
Your obedient servant,

C. SCHOMBERG ELLIOT, M.D.,
Acting Inspector.

Orillia, Dec. 7th, 1887.

REPORT OF COMMITTEE ON SEWAGE AND WATER SUPPLY *RE* OTTAWA FEVER OUTBREAK.

To the Chairman and Members of the Provincial Board of Health:

GENTLEMEN,—The outbreak of fever, investigated by your Committee, will, as seen by a subsequent statement of Dr. Robillard, Medical Health Officer of Ottawa, be noticed to have exhibited a remarkable suddenness of onset, and to have shown a general incidence in its appearance over the whole area of Ottawa and those suburbs supplied wholly or in part with water from the Ottawa river, obtained from a common supply pipe. Thus, in the tabulated report of one physician, 120 cases occurred during the four months, but only 11 cases had occurred prior to November. During this month 68 cases occurred. But the suddenness of the onset is still more marked, when it is stated that up to the 6th of November only three cases are reported, while between that and the 14th, 22 had come under his care.

From this it would appear that the epidemic dated from the beginning of the second week of November. Your Committee wish this point to be made plain, since the Local Board of Ottawa has been attacked with some degree of severity for dilatoriness in taking

action to investigate or to call the attention of this Board to the outbreak, and formally request an investigation to be made, which was done on the 5th of December. The formal request to investigate is dated December 9th, but owing to the illness of your secretary the enquiry was unfortunately delayed. It might have been more satisfactory had a careful and exhaustive enquiry been instituted early in the season, when organic matter in a decaying state, either in the water or on the soil, was at its worst stage; but especially before it had been removed after decay by the rising water of the later autumn, and before the frost had sealed up the river and reduced the decomposition of vegetable matter to a minimum.

The investigation was begun on the 27th December, and continued for several days.

The wide-spread character of the outbreak in November at once employed all the available medical skill of Ottawa and vicinity, and thus it was not until several weeks had passed that any idea could be gained of the total extent of the outbreak. The widest difference of opinion existed even at the time of our visit, the two limits being 500 to 1,000 cases. From Dr. Robillard's report, since received, it will be gathered that 1,272 cases have been reported, and that when the returns are complete 1,500 will probably have been reached—or one for every twenty inhabitants in a population of, say 30,000, or one in thirty with a population of 45,000. When it is further noticed that only about one in every hundred cases occurred in children under five years, and that ordinarily in a city about one-half the population is under that age, it will be seen that the incidence of the fever was really as one to every ten persons above five years. When it is further remembered that not more than one in eight occurred under ten years, we have the disease attacking a still greater proportionate number; but when we find that most of the cases were in persons under thirty years, and over fifteen years, its incidence probably has amounted to one case in every five persons between these ages.

In order that your Committee might have some correct idea of the prevalence of the disease, a circular was addressed to physicians by Dr. J. Sweetland, chairman of the joint committee of the Local Board of Health and the Water Works Committee for Ottawa.

The evidence obtained from the several reports received during the presence in Ottawa of your Committee was sufficient to indicate the wide-spread character of the outbreak, which was more than confirmed when information was obtained regarding its prevalence on particular streets. Thus, on a single street in one of the newly-built up portions of the city, the Chairman stated cases had existed at Nos. 41, 43, 44, 45, 50, 54, 55, 60, 61, most of which were houses with first-class plumbing, which your Committee inspected, while one or more were tenements with out-door privies. By a visit to the hospital your Committee similarly found that almost all the cases resident there were fever. The same might be said of several other streets specially visited by your Committee, which fact is further sufficiently indicated by Dr. Robillard's summary of the cases (as far as locality was given) returned by the twenty-five physicians reporting.

Report of Dr. Robillard, Medical Health Officer.

OTTAWA, Jan. 17th, 1888.

P. H. BRYCE, Esq., M.D.:

DEAR DOCTOR,—I regret that the returns we have had from the medical men of the city, in answer to your request, are wanting in many of the details necessary to give them much importance in a statistical point of view, many of them merely making mention of the total number of cases attended. Unfortunately, the circular did not ask for dates, locations or mortality rate, and where this information has been obtained it has been by special request. From these I have made a list of the streets whereon cases occurred, and the number of said cases, which, with the aid of a city map, will in some measure enable you to form an approximate estimate of the area covered by the disease which apparently prevailed all at once throughout the city irrespective of the conditions of localities, occurring seemingly as frequently in houses most favourably situated as in those occupying much less enviable positions. Thus we find the disease in houses where human skill had exhausted itself to satisfy the demands of sanitary science so far as

drainage and plumbing is concerned—in houses where drainage was defective and in many more having no connection whatever with city drains.

We have had returns from twenty-five physicians, reporting a total of 1,137 cases
Reported from R. C. Hospital ..... 88 "
" Protestant Hospital ..... 47 "

Total 1,272

There are yet four physicians to hear from, two of whom have large practices, and I have no doubt that with all returns the number of cases would reach at least 1,500. This, you will understand, includes suburbs, *i. e.*, Rochesterville, Stewarton and Mount Sherwood, which are not as yet within the limits of the city proper.

The mortality rate will be found very low, 25 deaths being recorded in the reports received; 17 of these occurred within the limits of the city according to the mortuary returns for December. The time covered by reports is the last three months, with the exception of half a dozen cases in September. As to the comparative number of cases occurring in each of the last three months, reports fail to give more than an approximate estimate. Thus, in October, we have 28 cases reported; in November, 682; and 262 in December.

I am glad to inform you that the epidemic has altogether disappeared, a number of convalescents yet remaining. No other contagious disease reported lately.

Reported Names of Streets on which Fever occurred.

Albert St., 23 cases.	Division St., 1 case.	Lisgar St., 5 cases.	Somerset St., 6 cases.	Spark Street, 10 cases.
Arthur St., 2 cases.	Elgin St., 5 cases.	McKenzie St,, 1 case.	Slater St., 13 cases	York St., 2 cases.
Alice St., 2 cases.	Eccles St., 2 cases.	McTaggarth St., 1 case.	Stewart St., 6 cases.	Victoria St., 4 cases.
Bay St., 4 cases.	Elm St., 2 cases.	Friel St., 1 case.	Sherwood St., 4 cases.	Percy St., 1 case.
Britannia St., 2 cases.	Bolton St., 3 cases.	Besserer St., 5 cases.	St. Patrick St., 6 cases.	King St., 7 cases.
Bank St., 8 cases.	Augusta St., 6 cases.	John St., 1 case.	St. Andrew St., 2 cases.	Lyon Street, 3 cases.
Clarence St., 7 cases.	Gloucester St., 13 cases.	Nicholas St., 14 cases.	Sophia St., 1 case.	Nelson St., 4 cases.
Cooper St., 14 cases.	George St., 1 case.	Nepean St., 5 cases.	Sussex St., 7 cases.	McLaren St., 4 cases.
Cumberland St., 9 cases.	Daly St., 27 cases.	Le Briton St., 2 cases.	Theodore St., 4 cases.	Frank St., 1 case.
Cathcart St., 3 cases.	Cambridge St., 4 cases.	O'Connor St. , 4 cases.	Redpath St., 1 case.	Chapel St., 1 case.
Cobourg St., 2 cases.	Lloyd St., 4 cases.	Ottawa St., 1 case.	Lewis St., 1 case.	Cliff St., 1 case.
Church St., 14 cases.	Metcalfe St. 11 cases.	Kent St., 3 cases.	Walter St., 2 cases.	Vittoria St., 1 case.
Creighton St., 1 case.	Maple St., 1 case.	Queen St., 5 cases.	Water St., 16 cases.	Gilmour St., 1 case.
Dalhousie St., 5 cases.	Murray St., 1 case.	Rideau St., 22 cases.	Wellington St., 15 cases.	
Duke St., 2 cases.	Maria St., 20 cases.	McKay St., 1 case.	Milbroke St., 16 cases.	

Yours truly, A. ROBILLARD.

Being desirous of obtaining some knowledge of the system of sewerage, your Committee examined the plans in the City Engineer's office. As is common to all our cities and towns, it was found to be largely wanting in any systematic attention to a graded capacity, and includes several systems. 1st.—There is the main sewer (Banks street), of nearly two miles extent, a four feet arched brick sewer, which receives the great proportion of laterals from Wellington, Elgin, etc., into which again laterals are carried to these as mains from such streets as Cooper street. 2nd.—There are a number of short streets in the newer part of the city near Stewarton, for instance Lewis street, draining into the Rideau Canal (deep cut), a body of still water at this point, which also receives a number of private drains direct from houses along the bank. 3rd.—And belonging properly to the latter, a watercourse in Stewarton becomes an open sewer in part of its length to the discomfort and detriment of near residents.

Then on Wellington street toward lower town, a number of private residences with drains leading no one very well knows where; also along the course of the aqueduct in the bottom of which is laid the wooden water-pipe through which water is drawn, not forced, a number of drains have to some extent turned it into a sewer in parts of its course.

Rochesterville suburb has no sewers, though situated on the incline to receive the general drainage from the contiguous higher ground of the city. The creek (called Brewery creek), is its sewer to receive whatever may reach it by soakage or by direct deposit in it from a public school, a tannery, the city dumping ground, or the swamp where the creek starts.

Such are the various principal sewerage areas and their character. What the present condition of the sewers is, has been much discussed. The City Engineer has stated that the main sewer has been traversed and examined, and that the laterals were found to have no evidence in them of accumulations, the sewage running from them freely. Evidence is not wanting, however, to lead to the belief that some of them may not be properly constructed as regards levels, but your Committee can, of course, express no positive opinion on this point.

The house drains similarly with the sewers have been under discussion. In many cases they are undoubtedly bad, being laid by private persons, in any manner thought proper at the time. Numbers of them are box drains for carrying off cellar water, or are untrapped tile drains. No doubt these defective drains have been, as everywhere else, a factor in the causation of the fever, and demand a systematic inspection by thoroughly qualified sanitary officers, and defects remedied under a strict plumbing by-law.

To illustrate this defective state of affairs, your Committee were informed that a large educational institution had until a year ago a cedar-log house drain, and a close inspection of the existing plumbing of the same building showed that a great reform in the system of plumbing within the building is urgently demanded. The students suffered largely from the fever; but it must be remembered that they were all at an age, as we have seen, when persons are most liable to fever, as also the very large general prevalence amongst those between 15 and 30 years.

In other cases, as stated by Dr. Robillard's statements, your Committee found on close and minute inspection of the plumbing of several houses where fever had occurred, evidence that every precaution had been taken to have the plumbing of a thoroughly first-class character.

In this connection it must be mentioned, as stated by Dr. Robillard, and definitely affirmed by one physician whose report is before your Committee, that nearly one-fifth of his cases occurred in houses in no way connected with city drains.

The milk supply of the city was not examined into by your committee further than to obtain the information from the Medical Health Officer that the milk dealers are licensed, and that the Board had instituted during the past year a regular inspection of cow byres and milk shops. In only one instance, under the notice of the Local Board was fever found in a milkman's house in one of the suburbs, while the total number of milkmen is considerable.

The superficial and subsoil organic deposits, as garbage and the contents of privies and soakage therefrom, are a fact of some importance to be considered in the summation of predisposing causes to fever at a period of the year when the atmospheric conditions

seem to specially tend to putrefactive decay in organic deposits, and to the multiplication of those microbes generally conceded to be the universal cause of fever; but especially is this the case where, with a subsoil water unusually low, drainage from privies and cesspools, extends laterally to a a greater extent than when the soil is filled after the spring rains. The absence of any regular municipal scavenging system, and of a destructor by which accumulations of organic refuse in and about the suburbs may be prevented must not be forgotten.

The public water supply of the city, in view of the sudden and general outbreak of the disease in the second week of November, naturally received, in the light of all modern teachings and experience in relation to outbreaks of typhoid and other fever, a large share of the attention of your committee.

As will be observed from the accompanying plan, the aqueduct, along the bed of which a wooden water pipe bound with iron hoops is laid, runs for 400 yards from the bay above the Chaudiere to the pumping house.

The breakwater at the bay end of the aqueduct, extending to the deep water channel, serves to create a quiet body of water, which permits, as stated in a report made for the Government, published in 1881, by D. B. Edwards, Montreal; T. C. Keefer, C.E., Ottawa; and Lewis Lessage, Montreal Water works, on the Ottawa Water works, the settling to the bottom of the larger particles of suspended matter. (It may be recalled to the recollection of the Board that the year 1881 was a fever year, the later summer months and September being unusually dry and hot.) The drought was not, however, so prolonged as during 1887, nor was the spring of the year marked by that absence of rains which characterized 1887. As however, the river was low that year, though not so low as in 1887, it will be of interest to examine the analyses of the water made that year, and during December of this year. The difference which might apparently result from analyses being at different seasons, ought, perhaps, to be against the latter, inasmuch as while the river water had not only risen before it froze up in the end of November, the decay of the river vegetation was by this time complete, and its decomposition must have been at its height several weeks before this, that is about the time when the fever became general.

I propose to refer to samples of water, taken in both instances, in the presence of the city engineer, and from the same place.

Analysis of Ottawa Water, 1887.

A.—From east side of slide channel, between 200 and 300 feet above mouth of aqueduct and about 600 feet from the north branch of the Rochester Creek, taken at a depth of about 5 feet below the surface.

B.—From mouth of clear water pipe or inlet, in front of screen, at a depth of 10 feet below the surface.

C.—From the tap in pumping-house.

D.—From tap in basement of city hall.

	Grains per Gallon.				Parts per Million.			
	A	B	C	D	A	B	C	D
Colour in 2-ft. tube	.....	Dark	Yellow.	.....	.....	Dark	Yellow.	
Smell at 100° F	.....	Slightly	Peaty.	.....	.....	Slightly	Peaty.	
Chlorine	.035	.035	.035	.035	.5	.5	.5	.5
Phosphoric acid		None.				None.		
Nitrogen in nitrates and nitrites	.0080	.0103	.0126	.0109	.1152	.1482	.1811	.1564
Free ammonia	.0014	.0014	.0007	.0007	.02	.02	.01	.01
Albuminoid and ammonia	.0091	.0084	.0084	.0084	.13	.12	.12	.12
Oxygen absorbed in 15 minutes	.1912	.1610	.1708	.1629	2.732	2.372	2.440	2.327
Oxygen absorbed in four hours	.3519	.3507	.3507	.3507	5.028	5.010	5.010	5.010
Solids	3.80	3.70	3.92	3.92	54.0	53.0	56.0	56.0
Hardness as calo	1.64	1.40	1.55	1.55	23.4	20.	22.1	22.1

22nd Dec., 1887.

FRANK J. SHUTT.

Analysis of Ottawa Water, 1881.

No. 1. Taken at mouth of Water Works suction pipe inside of Screens 9 feet down.

No. 2. Taken 50 feet N.W. of saw log sorting gate or boom, 3 feet down.

No. 3. Taken in crib slide channel, E. side, at pier about 140 feet directly in front of Water Works piers (that is, 150 feet from their northerly limit) 12 feet down.

No. 5. Taken in Water Works Acqueduct about 75 feet from sluices to turbine wheels, 6 feet down.

No. 6. Drawn from basin tap on Wheel House off city main.

Parts per Imperial gallon = 70,000 grains.	Nos. 1 and 4	Nos. 2 and 3	Nos. 5 and 6
1. Colour in 2 feet column	Light	Yellow.	Deeper & Ochreous.
2. Odour at 100° F	Slightly	peaty.	
3. Chlorine as Chlorides	4	5	6
4. Phosphoric Acid	none.	none.	none.
5. Nitrates and Nitrites	none.	none.	none.
6. Ammonia	.0050	.0052	.0056
7. Albuminoid Ammonica	.0010	.0011	.0012
8. Oxygen absorbed at 80° F	.0040	.0050	.0050
9. Hardness by Clark's test	3.5°	3.5°	3.5°
a10. Solids in Solution	4.8	3.2	3.6
b11. Solids in Suspension	4.2	4.0	4.6
c12. Microcosms	Chiefly	vegeta	ble.

7th September, 1881. BAKER EDWARDS.

Selecting a few of the more salient points of these analyses, we would observe that in what might be termed the permanent qualities of a water, such as hardness, color, phosphoric acid, solids, the Ottawa has continued to be the same in 1887 that it was in 1881.

The *chlorides* are present in both instances in very small amounts. Though, as pointed out by Mr. Shutt, the frozen brewery creek may account for an absence of chlorides in December, when local surface drainage from privies, etc., did not exist, yet in all probability the amount of sewage contamination at any time from this source would not be appreciable by chemical analysis in the river water at the intake pipe.

The *free ammonia*, in Mr. Shutt's analysis in December, is notably in small amount, and he takes it to be another evidence of freedom from sewage contamination. The greater amount of it in Mr. Edward's examination is manifestly due to decomposition in September being at its height—while at December 22nd it would not to any extent be taking place.

Albumenoid Ammonia.—Manifestly the amount of this in a water becomes the measure of its possibly dangerous character, as all experience attests; since, with certain conditions of season and temperature, its presence determines the free development of bacteria—some of which may at any time be pathogenic, or, as Hueppe believes, become pathogenic. Now there can be no doubt that the unprecedentedly dry spring and summer, associated with the fact that the yearly decreasing amounts of timber along the streams which are the head waters of the Ottawa, are lessening its volume, encouraged the growth along the banks and shallows up the river to an abnormal degree of algae and other aquatic plants, as well as exposing to the sun broad surfaces of previously deposited vegetable debris, (sawdust, remains of plants, wood, etc.) What this meant in October and November we can in some degree judge from what remained

as late as the 22nd of December, when the albumenoid matter (ammonia forming compounds) was nine times greater than in September, 1881.

Dr. Hueppe, at the recent meeting of the German Scientific and Medical Association, is quoted as saying in effect, that the bacteria which accompany intestinal decomposition may cause disease, and that here the distinction between saprogenic and pathogenic bacteria is wholly effaced, and that it must be granted, for the whole class of cases from the simplest diarrhœa to cholera nostras, that no line of demarcation can be drawn between putrid intoxication and specific infection, and he further believes that the specific bacteria owe their origin to putrefactive bacteria.

Regarding the dangerous character of this river as regards the presence of albumenoid matter in amount, Mr. Shutt says: "Many waters contain less than .05 per per million, and .1 part per million causes a water to be looked upon with suspicion, while .15 would, according to Wanklyn's standard, condemn a water for drinking purposes".... Judged also by this standard (*i. e.* absorption of oxygen) it is obvious that the Ottawa water in its present condition is unfit for drinking purposes, owing to the large excess of dissolved vegetable organic matter."

The biological analysis made by Mr. Shutt shows the presence of bacteria present in small amounts, and were this fact not carefully considered in all its bearings, a very false idea of the character of the water might be given. That the water on the 22nd of December contained a small number of bacteria would be expected from the very small amount of free ammonia, the constant evidence of rapid putrefaction in albumenoids. Both result from the fact that at this period the temperature of the water had become such as to practically cause the multiplication of bacteria in the water to cease, though not necessarily fatal to the existence of those already present. But on this point Prof. Prudden's experiments on Hudson river ice last year, showed clearly that the farther down from the source of sewage contamination as Albany, in other words, the longer the period after contamination, the fewer the bacteria in the water (or ice) became.

Similarly the total amount of albumenoids is no criterion of the dangerous character of a water, since from the experiments of Dr. Ellis and Prof. Wright on Toronto water, it is seen that while the bell-buoy water in organic matter was 22 by Wigner's scale, and has no bacteria, yet the water of the eastern gap, toward which bay water with included sewage flows, was 39 of Wigner's scale, thereby falling within the first-class waters and yet showed 5000 bacteria per c. c. These experiments may be taken as showing on the one hand that the almost ice-cold water of the bell-buoy in the spring time when these experiments were made, might have contained enough of albumenoids to develop bacteria if temperature had been favourable, while on the other, the warmer sewage poured into the bay had developed bacteria freely, which bacteria were still existing in the water at a time when chemically, it might be considered first-class.

It is extremely unfortunate that a biological test of the Ottawa water was not made at the time of the outbreak early in November.

Regarding the practical conclusions to be drawn from all the data before us, there are several inferences that seem to be fairly deducible.

1. That the outbreak of fever was remarkably sudden, and was spread, without any localized excessive prevalence, over the whole area of city and suburbs receiving its water supply by means of the Ottawa water-works system.

2. That nowhere, except in cities like Pittsburg during last autumn, and Plymouth, Penn., two years ago, where in both cases contaminated river water was the cause, were there during the past year such sudden and widespread outbreaks of fever as at Ottawa.

3. That the characteristics of the fever, regarded from its fatality (there having been recorded only fifteen deaths in Ottawa for November from this cause) point to contamination of drinking water with vegetable, rather than with animal organic matter.

4. That the chemical and biological examinations point similarly to excessive contamination of the river water by vegetable organic matters.

5. That the excessive dryness of the past season developed more than is usual conditions in the Ottawa which favoured the outbreaks when decomposition of this matter was at its height.

6. That sewage contamination from the villages along the shore above the intake pipe (*e. g.*, Rochesterville to Mechanicsville) must have added something to the dangerous character of the water at this period—it having been further shown that three cases of typhoid were treated during early September in houses situated on the banks of Brewery creek.

7. That no other insanitary condition (though probably aiding in individual houses, or perhaps neighbourhoods, the development of the disease, since "everyone will now admit that putrefaction is a predisposing cause of infectious disease") has been shown to exist that will adequately account for the sudden and wide outbreak of fever.

8. That the most eminent practical sanitarians assert that bad water is the exciting cause in at least 75 per cent. of all outbreaks of typhoid fever.

9. That the evidence obtained by your Committee points to the necessity of obtaining for Ottawa a water supply less subject to contamination from local sources, or by the fluctuating conditions of amount and purity incident to a river supply.

(Your Committee understands that lakes situated upon gneissoid strata, can be readily and economically reached across on the Hull side of the river.)

10. As the albumenoid ammonia of water is not a suspended but dissolved impurity, filtration will not remove this source of contamination, though it would lessen the amount of suspended impurities. No ordinary household filter is of use for any other purpose, but all are objectionable on the ground that the filter becoming filthy, often causes the water to become more dangerous than it was previously. In the meantime, the use of boiled water for drinking purposes ought to be regularly adopted.

11. That a system of city scavenging and the erection of a destructor for garbage are urgently demanded.

12. That a systematic house to house inspection of drains and plumbing ought to be at once instituted and a record preserved of conditions found.

13. That under a competent inspector, the provisions of the by-laws relating to house drainage and plumbing should be rigidly enforced, and at the same time local defects in main sewers should be remedied.

14. That as long as the Rochesterville creek is allowed to be utilized as a sewer, with the water pipe where it is, its outflow should be led into a sewer which would similarly receive laterals which now tend to contaminate the aqueduct.

15. The wooden pipe along the aqueduct should be tested as to its soundness and freedom from leaks.

16. That the Stewarton creek nuisance should be abated and the sewers fouling it, as also that of Lewis street and others now emptying into the deep cut, be led by an intercepting sewer to a point below the city.

17. That as the presence of defects in house drains is always suspected, where typhoid or diphtheria occurs, the Local Board should insist upon its notification of cases by householders and physicians, in order that inspection can be instituted and remedies applied.

18. That a register and map of cases on streets and houses be made so that an exact knowledge of localities and the incidence of disease may be obtained.

All of which is respectfully submitted.

J. D. MACDONALD.
P. H. BRYCE.

REPORT OF COMMITTEE ON SEWAGE, DRAINAGE, AND WATER SUPPLY *RE* FERGUSON AVENUE SEWER NUISANCE IN BAY AT HAMILTON, MAY, 1887.

TORONTO, 10th May, 1887.

To the Chairman and Members of the Provincial Board of Health.

GENTLEMEN,—Your committee appointed to investigate the nuisance alleged to arise from the outfall of the Ferguson Avenue sewer, in Hamilton, beg leave to report as follows:—

Your committee visited the locality of the mouth of the Ferguson Avenue sewer, and found that the nuisance complained of is caused by the sewerage being driven back on the adjoining shores and depositing there its more solid portions. We found men engaged in carting away the deposits and were shown pits in which large quantities of it lie buried.

This sewer carries the sewage of about 15,000 people. Nuisances arising from its outfall cause great annoyance to persons residing in the neighbourhood.

Your committee are of opinion that, looking at the matter purely from a sanitary point of view, the preferable method of dealing with the sewage is by chemical precipitation; the sewage to be compressed by means of Johnson's filter presses. We have no data to go upon in connection with works of the kind on this continent; and the computations of cost vary considerably in different places in England. Mr. Samuel W. Gray, City Engineer, of Providence, R.I., made very extensive and careful enquiries during a tour of investigation, and as a result states that the annual cost per head of population in England varies from 24 cents to 36 cents, and considers that a safe basis to go upon for America would be to compute the cost at about double of that in England. During the past few months, however, further experiments tend to bring the cost down to a lower figure.

If, from financial reasons, the city of Hamilton should not adopt this method of disposal, resort might be had to the plan of carrying the sewage out to a sufficient distance from the shores to prevent the accumulation of floating matter on the latter, and into a sufficient depth of water to obtain such a dilution of the sewage as will prevent its being in any sense a nuisance.

The depth of water should not be less than from 15 to 20 feet, and the distance from the shore not less than 2,000 feet. Should it be found that the head of water required to keep free from deposit a pipe of this length is not available pumping would have to be resorted to.

Provision would have to be made for allowing flood water (that produced by heavy rain storms)—to flow into the bay at the shore line.

All of which is respectfully submitted.

W. OLDRIGHT.
D. GALBRAITH.

REPORT OF COMMITTEE ON SEWAGE, DRAINAGE AND WATER SUPPLY ON THE PROPOSED SYSTEM OF WATER SUPPLY FOR THE CITY OF BELLEVILLE.

To the Chairman and Members of the Provincial Board of Health:

GENTLEMEN.—Your Committee on Sewage, Drainage, and Water Supply, having been instructed to report on the proposed system of water supply for the City of Belleville, begs leave to report as follows:—

General Typographical Description.—Belleville, a city of about 12,000 inhabitants, is situated on the Bay of Quinte, about 12 miles from its western extremity or head. The Moira River runs through the city and empties into the bay at this point.

The Bay of Quinte might, without any impropriety, be called a river, its greatest width near its head being about 2½ miles, its width opposite the western portion of

Belleville less than a mile, and at its eastern portion (by a sudden expansion) nearly two miles. The only considerable body of water emptying into the bay is the River Trent, a navigable river, on the mouth of which, about 10 miles west of Belleville, is situated the town of Trenton.

About half a mile outside the western limit of the city is the asylum for deaf mutes, the number of which varies say from 200 to 300 ; 293 being the number of pupils in 1883. This institution is provided with water closets, and the sewage empties into the bay.

The Moira is not a navigable river. From information furnished by the medical health officer and other officials its average width appears to be about 100 yards, its depth at low water not over a foot or eighteen inches, and its average rate during summer from four to five miles an hour.

Opposite the western portion of Belleville, and about 140 yards distant from it, is situated Zwick's Island, of an oval shape ; its long diameter, parallel to the water front of the city at this point is a little over one-fourth of a mile long ; at its north-eastern extremity, and stretching between it and the shore, is a swamp or reedy spot about three-eighths of a mile long and less than a quarter of a mile broad. This, we are informed, becomes dry, or almost dry, in time of low water.

The proposed system of water supply is to conduct the waters from a point nearly 300 yards south-west of this island, through a 20-inch iron pipe to a tank or well from which it is to be pumped, through mains and water services to be laid in the city. Between the end of the 20-inch intake pipe and the foot of the suction pipe to have a wooden frame, extending across the well and containing a filling about 2½ inches thick of compressed sponges, through which the water must filter before it can enter the suction pipe of the pump. Plans and descriptions of this filter will be found attached to this report. This filter will be referred to more in detail at a later stage of the report. It is also proposed to have a water tower or stand-pipe 25 feet diameter and 120 feet high.

At the place selected near Zwick's Island from which to take the water, we are informed there are a number of springs, the water being colder in that locality. The depth of water at the proposed point of intake is about 20 feet.

The company is under obligation to furnish a water sufficiently pure for drinking purposes, and it is not compulsory on citizens to use the water unless they choose to do so. So that it is to the interest of the company to furnish good water. The company, we are informed, is the same which is supplying Cornwall with water.

Other possible sources of supply have been enquired for by your committee, and two others have been mentioned :—(1) Oak Hill pond, a distance say of 12 miles, the water of which is of extreme purity, but which is objectionable on account of expense and of doubts as to the quantity which it would yield. We are informed that in the dry season there is not enough water to run a mill which is placed upon its effluent stream. (2) Another source spoken of is Corby's Dam on the Moira River, but the water of this now is of a dark brown, swampy nature, and in summer might be deficient in quantity and at low elevation.

The present sources of supply are wells and local springs. The latter are deficient in quantity, and though the medical health officer is endeavoring to suppress, and is suppressing, the privy-pit system, nevertheless the condition is still such as to render the use of wells dangerous.

Character of the Water proposed to be Used.—A copy of the report of Dr. Ellis, who analyzed several specimens, will be found appended to this report. It will be seen that whilst he does not consider the water a first-class one, still it comes fairly within the class of "potable waters," its impurity being that of a "peaty water," not capable, *per se* of giving rise to any unhealthy condition.

Possible sources of sewage contamination were looked for and investigated. The town of Trenton contains about 5,000 inhabitants. The volume of water in the River Trent is such that no appreciable effect would be produced upon the water by the waste of this town. Nor has a sewage system been carried into effect. No evidence of sewage contamination, from the deaf mute institute, of the water at the proposed

point of intake has been presented to us ; but we consider that it would be a proper course to utilize the sewage of the institution on the farm attached to it.

In regard to the sewage system of Belleville itself, which must soon follow the introduction of water works, there will be ample facility for disposing of the sewage at a sufficient distance below the point of water intake, and without danger of return currents. We have made all necessary enquiries about currents, as will be seen in a copy of a letter addressed by your committee to Dr. Tracy, medical health officer, and of his replies thereto.

The filters proposed will be understood by a reference to the plans and designs sent by the Medical Health Officer.

The proposers do not refer us to any instances of their use in other places, so that they seem to be of the nature of an experiment, and one that we cannot endorse. We fear that so much trouble will be required for a frequent and efficient cleansing of them, that this will seldom be attained. And we would remind the Board of the acknowledged fact (which is almost a truism), that a filter which cannot be kept clean tends rather to pollute than purify the water passing through it.

A proper system of filtration must be employed with a water such as that described as being obtainable. Even if a filter acting by gravity and consisting of successive horizontal layers of sand and other filtering material were to be recommended, on general principles, it could not be adopted here without a second system of pumping, and other engineering difficulties. The system of mechanical filtration, with proper facilities for frequent and efficient cleansing of the filtering material, seems to be that most appreciated by sanitarians on this Continent at least at the present time. Regarding the Hyatt filters of the Newark Filtering Co., we have received such information from various sources as would lead us to believe that they are well adapted for the indications set forth above. The information referred to may be stated as follows:—

(1) The filtration of the water supplied to the Asylum for the Insane at Kingston having become a necessity, Dr. W. T. O'Reilly, Inspector of Asylums, made a personal inspection and investigation of the work done by the Hyatt filter in various places, and was so pleased with the result that he recommended one for the Kingston Asylum.

(2) Two of the members of your Board, one of whom is a member of this Committee, saw this filter in operation, and saw the process of washing the filtering material ; the filthiness of the water in which the sand was washed was not less striking than the contrast between the filtered and unfiltered water. We are informed by Dr. O'Reilly that the filter, which has been in use nearly three years, continues to give great satisfaction. The filtering material is washed daily, and could, if necessary, be washed oftener, one man being sufficient to attend to the operation.

(3) Very satisfactory reports are published by the Newark Company from cities on the Mississippi and in other parts of the United States, where they are used for removing the suspended impurities of very turbid waters.

(4) The reports from various sources have been so satisfactory that the United States authorities are now contemplating the use of this system of filtration on a very large scale for the City of Washington. The report of Capt. Thos. W. Seymons, Captain of the Corps of Engineers, U.S.A., is herewith laid before the Board.

The Recommendation of your Committee then, is that the Board approve of the proposal to obtain the water supply of Belleville from the Bay of Quinte, at the spot selected and indicated to your Committee, provided that some efficient system of filtration is adopted.

Your Committee desires to express its obligation to Dr. W. T. O'Reilly and Robert Christie, Esq., for information supplied by them.

All of which is respectfully submitted.

WM. OLDRIGHT.
J. GALBRAITH.

Toronto, 23rd May, 1887.

REPORT *RE* NIAGARA FALLS SEWER DISPUTE.

To the Chairman and Members of the Provincial Board of Health :

GENTLEMEN,—This day, in company with Dr. Bryce, secretary to the Provincial Board of Health, I proceeded to the town of Niagara Falls, and after ascertaining the course of a stream which runs through the town, and is in great part covered and used as a sewer, we visited together the locality regarding which it has been reported to the Board of Health that a dispute existed between the corporation of the town and Dr. John Ferguson, M.P.

Entering the grounds of Dr. Ferguson for a few yards, a newly constructed drain was come upon, which being followed to the left, led to a stone culvert, near which the drain ended, without communicating with the culvert. The culvert proved to be the outlet of the drainage of the town.

The contents of the culvert were in a great measure discharged into an open stream which passed towards the river along the base of a slight elevation, on which stands the dwelling house of Dr. Ferguson, and through his orchard. A small portion of the foul water from the culvert was turned aside into a wooden box, nine inches square, and was conveyed to the river's edge for the purpose of supplying power to an elevator there.

The open stream, containing much the greater part of the drainage from the culvert, and passing within a short distance of the front of the dwelling, is offensive to sight and smell, is a nuisance, and a source of danger to those who live near it—the water is foul, and the bottom covered everywhere with sewer deposit—"sludge." The sewer, so-called, of Niagara Falls, in reality is a natural watercourse, which has been confined and covered over, as it passes through the town, and thus perverted to its present use.

It seems right, as it is quite possible, that the corporation of the town should intercept all the sewage before it reach the watercourse, and that this no longer remain a source of molestation and danger to those whose places of abode it passes by.

The following additional particulars may be given with regard to the matter. The questions at issue, as will be remembered were : 1st. Inasmuch as part of the water of this water-course, used as a public sewer, was turned aside for working an elevator, from which it was stated Dr. Ferguson received a revenue, whether the doctor could fairly ask the town of Niagara Falls to pay the expense of carrying the remainder of the water to the Niagara River by a sewer constructed through his property—within the town ; since it was asserted that had no water been diverted from its natural channel, no deposit would have occurred on his property along the course of the creek.

2nd. Whether, inasmuch as the construction of the sewer was undertaken by the authority of the Local Board, their order on the treasurer was legally sufficient to order that the municipality pay the cost of the work.

3rd. Whether it was legal for a municipality to create a nuisance on private property by allowing an open water-course to become an open sewer on private property, thereby creating what was on all hands acknowledged to be a nuisance.

The summary of facts as above stated shows, viz., that a nuisance could not fail of being created under the circumstances ; and it is interesting in view of the bearing of the question upon the powers of Local Boards to state how the matter has been concluded.

1st. It has been stated that the Board built an 18-inch tile sewer, and that it then sent the accounts to the Council for payment.

2nd. That the Council refused to honour the accounts.

3rd. That the Board refused to connect the new sewer with the old one until such work was paid for.

4th. That the town solicitor could find no reason why the Council should be required to pay it.

5th. That this Board was appealed to formally to have the nuisance abated on Dr. Ferguson's property.

6th. That before the formal investigation by your committee, Dr. Ferguson had had an injunction issued, preventing the town from creating a nuisance by pouring the town sewage into a natural water-course on his property.

7th. That the Town Council suddenly found that it would be perfectly legal for them to acknowledge the responsibility of the municipality for the payment of work ordered by the Local Board of Health.

It is to be hoped that Local Boards generally will recognize the importance of the decision as far as relates to their power to order work to be done, in performing their duties under the Health Act, and to have their accounts honoured by the treasurer of the municipality.

All of which is respectfully submitted.

J. D. MACDONALD.
PETER H. BRYCE.

REPORT OF THE SECRETARY *RE* BERLIN AND BRANTFORD WATERWORKS.

To the Chairman and Members of the Public Board of Health:

GENTLEMEN,—Having, as will be observed from the correspondence, been requested to report on several matters connected with the various towns mentioned, I have, in the absence of any committee appointed to deal specially with the matters of sewerage and public water supplies, made visits of inspection to Brantford and Berlin, in order that any contracts or agreements made may be executed as soon as possible.

Dealing with these places in the order of my visits I first refer to the city of Brantford.

Brantford.—On a telegram stating that Mr. Haskins, engineer, of Hamilton, the Local Board of Health and members of the Council were to visit Blue Lake, I left for Brantford on Wednesday, but, unfortunately, I was a day too late to go with the party. The opinion of the whole party, after a close inspection of the lake, its surroundings, and the hill country through which pipes would have to be laid, was, I understand, unanimously against any further consideration of supplying Brantford from this source, some nine miles away.

The soil about Brantford being of a sand and gravel loam with a clay sub-stratum, makes it of great importance that in so large a centre of population wells be done away with; and the Mayor, Medical Health Officer, Council, and Local Board of Health are all busily engaged in discussing which of several schemes will be best for the city.

The Medical Health Officer and myself on the day of my visit made a thorough inspection of the river valley to the west of the city. The river valley varies from one to two miles in width, with considerable flats of a gravelly loam, often flooded in the spring time. The river water is good, but receives the drainage of a number of towns, Paris, Ayr, Galt, etc.

Two schemes since my visit have, through the activity of the citizens' representatives, been presented for consideration. As both have qualities, making them valuable under different conditions, and as Brantford has not presented any scheme to this Board for its formal approval, I deem it well to say nothing more than that one scheme, is that of the drive well, or gang well system, by which the water will be taken deep down from strata to which the ground waters have filtered; while the other provides for the utilization of river water after allowing it to filter through a bed of sand before entering the pumping well. It is proposed that the plant of the present partial system,

by which water for fire purposes is supplied to the town from a spring creek, be bought and become a part of any new system.

There is under contemplation a system of sewerage for the town, and an examination of the canal of the flats below the city, and of the river channel, was made by the Medical Health Officer and myself with a view to the selection of the best site for their outfall sewer.

The city has instituted a system of licenses for milk vendors, and carries on a periodical inspection of all dairies and cow sheds, both within and without the city, from which milk is supplied to the city.

Berlin.—I herewith submit for the consideration of the Board the plans and specifications, with the form of contract made between "The Berlin Waterworks Company and the Town of Berlin."

In order to facilitate the progress of the scheme for supplying Berlin with water, I requested the contractors and the Mayor of Berlin to forward the plans and specifications, so that they could be considered at this meeting, and visited the town on the 15th of August and inspected the proposed source of supply.

As stated in the contract, the company propose obtaining the supply from springs or from Shoemakers' Lake.

For the information of the Board I would say that the high lands of that portion of the Province are composed of sand and gravel loam, sometimes overlying beds of clay, and in the valleys as at Guelph, the rock crops out. The ground around Shoemaker's lake has these first characteristics. It is on a considerable expanse of rising ground, declining on two or three sides, and supplying on the west and south drainage into Shoemaker's creek, and gives enough of water in such a season as this to run a saw mill. To the eastward the high ground declines, and from springs on the hills supplies most of the water which makes Shoemaker's lake.

The lake, I am informed, never changes its level, has not this year, and personal evidence went to show that several springs on the hill side are never ceasing in their flow.

The pumping wells are to be sunk near the lake, but as will be seen from the rough sketch as many more wells can be sunk along the declivity as are required to give sufficient supply of spring water to the town.

As will be seen from the agreement, a sufficient supply of first-class water is guaranteed, and must be to the satisfaction of the Local Board at all times in the matter of purity.

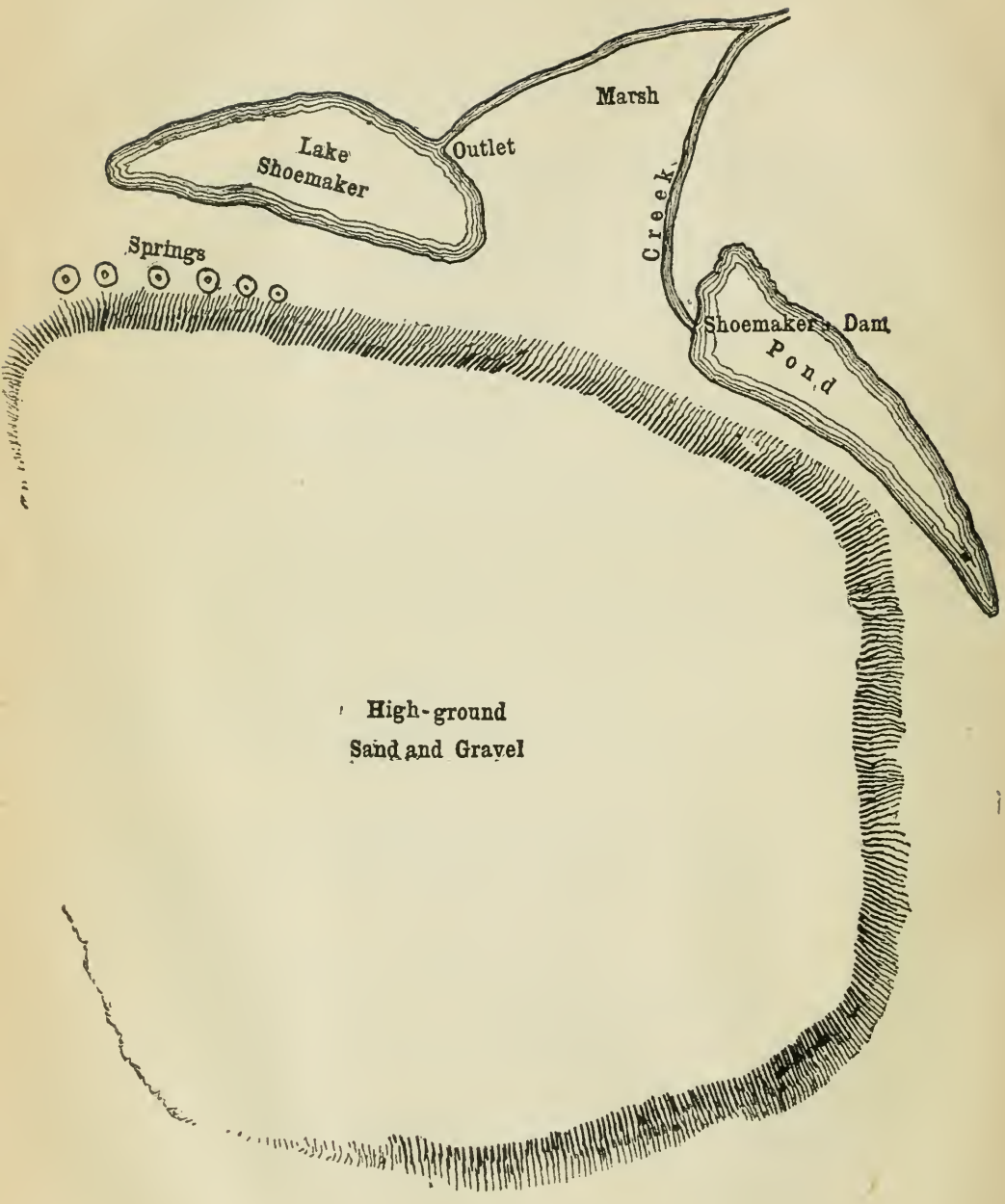
There can be no question regarding the purity of the water of these springs at present, and as regards their future I think there can be no doubt that should the uplands be maintained in pasture, meadow lands, or even occasionally manured, filtration and oxidation before reaching the springs, would make any danger from this source of no practical account.

I would therefore recommend that the Board, by resolution, approve of the scheme for supplying water to the town of Berlin.

I also visited a creek at a point some considerable distance below a tannery, which has been complained of as a nuisance, on account of the pollution of said creek by the washings, clippings of hides, etc., which are thrown into it. The stream being practically dry at the time of my visit, I had no fair opportunity of judging whether the matter is one of such import as to demand further consideration by this Board. I understand legal proceedings have been taken by interested parties with the intention of preventing the further pollution of the stream by the tannery proprietors.

All of which is respectfully submitted,

P. H. BRYCE,
Secretary.


Marsh
Lake
Shoemaker
Outlet
Creek
Springs
Shoemaker's Dam
Pond
High-ground
Sand and Gravel

REPORT *RE* THE WOODVALE POND, ST. GEORGE.

To the Chairman and Members of the Provincial Board:

GENTLEMEN,—Your Committee on Sewerage and Water Supply, visited the village of St. George, on Thursday, the 8th ultimo, and, having met in the village immediately, without communicating with the parties involved in the dispute regarding the matter complained of, proceeded to examine the pond of which complaints had been made to the Board.

The pond is situated about a quarter of a mile to the south of St. George, on the road to the Grand Trunk station, the road forming the dam or dyke by which the water is retained. The pond so formed is about an acre and a half in extent, and is of considerable depth, apparently from six to eight feet deep in some of its parts. The water contained in it is clear.

The banks at the end next the road are tolerably high; further back the margin is formed by a field which is cultivated to the water's edge, and at the extremity farther off there is an enclosed space of about a quarter of an acre, through which flows, in a rapid current, the waters of supply to the pond. This little stream is about three feet broad, and upwards of two feet deep. The fenced portion through which it runs is a little swampy, but is covered with long grass, on which horses were grazing. The margin towards the south and east is fringed with oak and basswood trees.

There are in the water several decaying logs or trees, apparently lying where they fell, and other timber, as old fence rails and small pieces of broken boards. Over the surface are several patches of what is commonly called slime, but which is living vegetation rooted to the bottom; throughout there is abundance of pond weed: in the shallower parts are clumps of rushes, and round the edges an iris or two.

Not far from the edges of the ravine—called Woodvale—in which the pond lies, are four houses. Of those the nearest is that of the occupant of the mill, to turn which the water is used. This house lies across a green field, about 150 paces from the pond bank, which is here about six feet high. The other houses are not only at a greater distance but at a higher elevation. On enquiring as to the sickness which might exist in those houses, the information obtained was, that the family in one of them suffered a good deal, but from sickness of various kinds, and not of malarial origin, and that its members had been equally delicate before moving into the house inhabited by them at present. There are three ponds in or near St. George, all formed by the obstruction of the same stream in its course towards Woodvale. One of those is in or near the middle of the village, immediately behind the premises of Dr. Kitchen, Sen. The second is at the foot of the main street, both free from floating material; and the third is the one complained of. The industries and the existence of the village seem to depend upon its ponds; and therefore the propriety of drying those is questionable; and further, your Committee, after examination and enquiry, cannot see that sanitary considerations render this expedient nesessary. No complaints have been made of the two upper ponds. Your Committee would recommend that the logs, wood and other decaying matter be removed from the water complained of as being in a state dangerous to health, and that care be taken that the muddy bottom be not left exposed. It should not be difficult to succeed in this precaution, as the rush of the stream of supply seems sufficient, under good arrangements, to drive very heavy machinery.

Respectfully submitted,

J. D. MACDONALD, M.D.
H. M. MACKAY, M.D.

REPORT OF COMMITTEE ON FOODS AND ADULTERATIONS, *RE* INSPECTION OF PUBLIC MILK SUPPLIES.

Your Committee on foods and adulterations begs leave to report as follows:

GENTLEMEN,—The question of inspection of milk supplies to cities has been so frequently brought to the attention of this Board, in regard to its necessity, that but little need be said on this point. Past and recent legislation have placed Local and Provincial Boards of Health in a position to deal strongly with this matter of signal importance.

In a few cities and towns of Ontario an inspection (by the Food Inspectors of milk supplies) has been in existence for years; but their energies have generally been directed to examining samples of milk as to adulteration or watering, and occasionally, when the byres have been in towns, their conduct and cleanliness have been matters examined by Sanitary Inspectors. In several cities, notably Brantford and Windsor, an attempt has been made, by licensing milk vendors, to cause them to submit to an inspection of their premises; but, excepting these, there has, as far as I am aware of, been no attempt to guard against the contamination of milk, or its production by unhealthy cows. From abundant evidence, received from every source, it is quite plain that tuberculous cows are frequently utilized for supplying public milk, persons coming from houses wherein are infectious diseases, both milk the cows, carry the milk to shops, and the milk vendors on the streets have been known in many instances to come from houses with the infectious diseases; also, to handle the cloths, etc., which are used to wash the cans. Waters contaminated with typhoid germs, etc., have been known to be used in washing dishes, while the cans and pans have been exposed to sewer gas, from bad house drains. When taken in connection with this it is known that the waste refuse products from corn starch factories, from silos containing fermenting cut green corn, and probably distillery slops, have, notably in the summer season, been charged, with reason, of causing gastric disturbances and diarrhœas, there can be no doubt but that the duty of Health Boards to deal practically with these matters is beyond question.

The question of what this Board ought to do is now a matter for consideration.

Your Committee considers that the increased powers placed upon this Board leaves no option to it, but that of taking action, if it believes these statements to be true in relation to the outbreaks of many epidemics of disease, as shown in the reports of the Local Government Board, Great Britain, *re* outbreaks of scarlet fever, as that at Hendon, published in 1887, and of diphtheria at York Town and Cantberry District, recently published.

Your Committee, taking into consideration the position the Board now legally occupies, would recommend—

1st. That all Local Boards be reminded by circular what their duties are in relation to the inspection of milk, stables, animals, etc., and that the points be indicated which ought to be examined into by them.

2nd. And that their attention be called to the duty laid upon this Board of taking such action as it deems necessary for limiting the spread of filth diseases; and farther, that Local Boards be requested to take such effective measures in matters laid upon them by the Acts, as will make it unnecessary for this Board to interfere actively in matters ordinarily carried out by local boards.

FRANCIS RAE.

To the Honourable Alexander M. Ross, Provincial Treasurer and Commissioner of Agriculture of Ontario.

SIR,—It will be present to yonr recollection, that a series of reports have been presented to and adopted by the Provincial Board of Health during the last two years in consequence of the numerous complaints presented to the Board regarding cheese

factories, creameries and dairies, owing to the unsanitary methods for the disposal of whey and other waste products connected with them ; further that a conjoint committee of the Provincial Board of Health and Western Ontario Dairymen's Association adopted certain recommendations regarding the construction and management of cheese factories, the method of supplying milk to these factories, as well as the methods for the proper disposal of whey and other refuse products. It may be further stated that the committee appointed to deal with the subject in concluding recommended :—

1. "That an inspector or inspectors be appointed under the Minister of the Department, which inspector should have power to inspect nuisances and unsanitary conditions existing in and around cheese factories and creameries, and to report to the Minister.

2. "That they assist under the direction of the Minister of Agriculture in carrying out recommendations and suggestions similar to those made by the Western Ontario Dairymen's Association in regard to—(*a*) construction and management of cheese factories, creameries and hog pens, and (*b*) disposal of whey and the providing of milk.

3. "That your committee be further empowered and directed to act with the committee of the Dairymen's Association to secure such legislation as is necessary to carry out these suggestions."

During the year 1886 the Board further urged the necessity of such inspections of food by referring at different times to the evils existing in connection with public meat supplies. The Board's recommendation regarding new legislation is contained in the provisions incorporated in secs. 4 and 5 of "An Act to amend the Act respecting Public Health," passed in 1887, which requires the periodic and systematic inspection of such sources of meat supplies by municipalities, whether within or without the municipality, but the similar authority of a Local Health Board with reference to milk supplies has been inadvertently apparently "limited to its own municipality." The Provincial Board would respectfully submit that the inspection of milk at the source of supply is absolutely essential to any effective system of preventing or lessening the many dangers both as regards the supply of milk from unhealthy animals and the subsequent contamination of healthy milk. To show that these latter dangers are of the most positive character this Board would respectfully submit the following facts :—

1. That milk is in a special sense a "culture" medium for bacteria of many kinds, and that, as every one knows, it does undergo lactic acid fermentation often during a single night. A common estimate of biologists is that a single bacterium by a process of growth and subdivision may give rise to more than 16½ millions of similiar organisms in 24 hours, so minute that the whole number would occupy a space less than 1-1600th of a cubic inch, and it has been practically demonstrated by T. M. Prudden, M.D., Director of the Laboratory of the College of Physicians and Surgeons, New York, that, more than one and a half millions of typhoid bacteria may be diffused in a teaspoonful of clear distilled water without in the least appreciable degree altering its transparency.

2. That while the great proportion of bacteria are harmless, playing the part of breaking down organized bodies into their simpler constituents, nevertheless there are some bacteria, as bacilli of typhoid, bacilli of diphtheria, bacilli of scarlatina, of pyæmia, tuberculosis, etc., which have undoubted disease-producing characters.

3. Koch, Fraenckel, Frankland, Prudden and all high authorities on water analysis are agreed in saying that good drinking water ought not to show more than 50 living bacteria per cubic centimetre ; but when it has been shown that clear ice which seemed apparently good, from a river receiving sewage from a city some miles above, contained as many as 50,000 living bacteria per cubic centimetre (20 drops) when the ice was melted down, it will not be difficult to see how enormously the dangers to life from such organisms are increased where a cultured medium like milk is contaminated, (*a*) by the microbes of a disease from the blood of a tuberculous cow, from cows drinking sewage-polluted water, or from breathing the air on the farms, the atmosphere of which is contaminated by the emanations from the decomposing bodies of dead animals, (some

factories by by-law prohibit the reception of milk from farms whereon are dead animals); (*b*) by direct pollution of the milk in cans containing remains of decomposed milk, or washed with sewage-contaminated water, as from the barnyard pump or from dirty cloths used in washing; (*c*) by direct pollution of the milk in milking from the hands of persons coming from houses where these infectious diseases are; (*d*) in the dirty waggons wherein manures, etc., are sometimes carted home from the city piled up against the milk cans, or (*e*) by infection from the air in milk sheds and shops in the city where milk is kept over from night till morning and by the putting into the cans uncleansed utensils for the purpose of taking out small lots for sale during the evening.

4. That these causes are of daily occurrence is evidenced by such investigations as those of the Local Government Board of Great Britain, the reports of the Veterinary Inspector and the Analytical Chemist of the City of Brooklyn, 1886, or the practical experience of many of our cheese and butter makers *re* milk not subjected to a tithe of the dangers to which ordinary city milk is exposed. If statistics of our Ontario cities cannot give us any very positive evidence regarding these dangers it is only because no such organized systems of inspection and examination are in existence to follow out the minute details of any so scientific a subject.

5. Viewing these facts from the standpoint of your Board appointed especially to deal with these matters, it must be evident to you that the recommendations of its Committee on foods, drinks, and adulterations on this subject would seem to be urgently called for, and that practical effect be given to their recommendations seems equally plain.

As you are doubtless aware Schedule A., Public Health Act, 1884 (liable, however, to repeal by Council), gives power to municipalities to grant licenses to milk vendors, to inspect byres, animals, etc.; and that the statute of 1887 gives a similar power has been already stated. What further seems to be required, however, is that instructions be transmitted to your Board authorizing it to recommend to the Local Boards a system of public milk inspection particularly in our larger centres of population in view of the existing and yearly increasing prevalence of such diseases as diphtheria, tuberculosis, etc., and to authorize your Board to further to state that under the powers given it under clause 6 of the statute of 1887 it will be the duty of the Provincial, where said Local Boards fail, to carry out these suggestions, that such inspections should be made at the expense of said municipalities, should it be so ordered.

This memorial was unanimously adopted by the Board on motion of Dr. F. Rae, seconded by Dr. P. H. Bryce and ordered to be transmitted to the Minister of the Department.

Francis Rae,
Chairman.

Toronto, 24th August, 1887.

Dr. P. H. Bryce,
Secretary Provincial Board of Health, Toronto.

Sir,—Referring to the memorial or recommendation of the Provincial Board of Health adopted at the last meeting of the Board, in regard to the inspection of cheese factories and creameries, I would say:—

1st. In regard to the recommendation "that an inspector or inspectors be appointed under the Minister of the Department, which inspector should have power to inspect nuisances and unsanitary conditions existing in and around cheese factories and report to the Minister" that section 5 of the Public Health Act of 1887 authorizes a medical officer, under the direction of the Local Board, to make an inspection of dairies, creameries, cheese factories, etc., within his jurisdiction; but there is no Legislative authority for the appointment of a Provincial inspector or inspectors acting under the Minister.

2nd. In regard to the request in the last paragraph of the memorial, "that instructions be transmitted to the Board authorizing it to recommend to the Local Boards a

system of public milk inspection, particularly in our larger centres of population in view of the existing and yearly increasing prevalence of such diseases as diphtheria, tuberculosis, etc., and to authorize your Board to further state that under the powers given it under clause 6 of the statute of 1887, it will be the duty of the Provincial, where said Local Board fail, to carry out these suggestions, and that such inspection should be made at the expense of such municipalities, should it be so ordered."

By the Public Health Acts, Municipal Councils are given full control of the licensing, regulation and inspecting of these dairies and factories, and in view of the dangers arising from the unsanitary conditions of milk, set forth in your memorial, I shall be happy to concur in the Provincial Board making any recommendation to the Councils and Local Boards which they think essential, in regard to a system of inspection of such by the Medical Health Officer, or as otherwise directed by the local Board; but I cannot authorize the Provincial Board to state, under the powers given in section 6 of the statute of 1887, it will be the duty of the Provincial Board, where such Local Boards fail, to carry out the suggestions at the expense of the municipality, as I do not conceive that section 6 gives the Provincial Board or myself any such authority in such matters. The powers extended to the Provincial Board and to the Minister of the Department by this section are expressly confined to measures to be taken for the limitation of "any *existing*, dangerous, contagious or infectious disease."

I am, Sir, your obedient servant,

A. M. ROSS,
Commissioner.

Toronto, November 30th, 1887.

Your Committee on Epidemics begs leave to report that it held, as directed, an interview with the Minister *re* the importance of inspection of milk supplies in those places where diphtheria or other communicable disease exists. The Minister, while insisting strongly on the desirability of local authorities performing their own work as required by the Health Acts, is of opinion that this Board is empowered by section 6, 1887, to require such measures to be taken by Local Boards where there seems to be danger of such diseases being introduced from milk supplies. It, therefore, remains for this Board to decide whether the condensed report regarding the existing prevalence of diphtheria and typhoid does not present such facts as to make it proper for the Board to insist upon regulation and inspection in such municipalities as having said diseases prevailing.

All of which is respectfully submitted.

FRANCIS RAE.
P. H. BRYCE.

REPORT OF COMMITTEE ON VENTILATION.

Mr. Chairman and Gentlemen,—We have great satisfaction in submitting for your approval Dr. R. Blockmann's apparatus for determining the proportion of carbon dioxide in a given sample of air. It possesses the merit of giving quantitative results, and of being so simple in its action that no chemical knowledge is required in order to use it; it is also very cheap. The process is based on the employment of a sufficient volume of the air under trial to saturate, by means of the carbon dioxide gas present in it, a given amount of lime water of a *fixed strength*. In order to recognize the fact of this saturation a few drops of a solution of phenolphtalein are added to the lime water until it assumes a visibly red tint. The colour remains as long as the liquid continues alkaline, but directly the caustic lime is all converted into the carbonate, a very small excess of carbon dioxide is sufficient entirely to destroy all trace of the red tint.

The apparatus consists of a glass bottle of the capacity of 500 c. c., or half a litre ; a bent glass tube with a bulbous expansion near the middle, which makes it fit accurately over the neck of the bottle, a solution of phenolphtalein made with rectified spirit, and a solution of lime water, which is one-tenth the strength of the volumetric solution. The mode of using the apparatus is as follows* :—

The bottle is filled with the air to be tested by sucking out the air contained in it through the bent glass tube ; half an ounce of lime water is poured into the bottle together with three drops of the solution of phenolphthalein, and the bottle is then corked and shaken for three or four minutes ; if the liquid is still red, the bottle is filled a second time with air, corked and shaken as before, and the process is repeated until the colour in the liquid vanishes. If the colour remains for four fillings, the air is very good, as pure as the outside air ; if it remains for three fillings, it is a good sample of indoor air ; if it disappears at the second filling, it is not good air ; if the colour goes at the first filling, the air is so impure as to render it wholly unfit to be breathed. A table follows in which the volumes of carbon dioxide gas present in 1,000 volumes of air are given as indicated by each filling from the first to the fourth. Thus, taking half an ounce of lime water :—

1st filling	1.61	per mille.
2nd "	.806	"
3rd "	.537	"
4th "	400 at 60 Fahr.	

By increasing the quantity of lime water the presence of much larger quanties of the gas can be ascertained ; thus, with one ounce of lime water, a discoloration at the first filling would indicate the existence of 3.22 vols. per mille.

Mr. Heys, analytical chemist, of 116 King St. West, has examined the Blockmann method, and reports, "That in his opinion it gives excellent approximative results sufficiently accurate for practical purposes."

All of which is respectfully submitted.

J. J. CASSIDY.
H. P. YEOMANS.

REPORT OF COMMITTEE ON POISONS.

To the Chairman and Members of the Provincial Board of Health :

GENTLEMEN,—At the last regular meeting of this board, instructions were given to your committee on poisons and accidents to report at this meeting on the best means of preventing loss of life from the inhalation of illuminating gas in bedrooms. Your committee having carefully looked into the matter, beg to report as follows :—

Accidents of the kind mentioned rarely occur in private dwellings. Unfortunately, however, they are not infrequent in hotels. Any remarks or suggestions which will be made in this report will therefore apply more particularly to the latter.

To any person who will give the subject a few moments thought, the prevention of these accidents will not seem a difficult task. And yet, however, though the necessity for taking some appropriate action in this direction seems patent to all definite rules and instructions calculated, if observed, to prevent loss of life, have so far not been made binding on hotel-keepers and other interested and responsible parties.

Your committee propose therefore to lay before you, for your consideration, certain rules, the observance of which, in their opinion, will entirely prevent loss of life from the inhalation of illuminating gas in bedrooms, and yet not entail any hardship on the

*The apparatus and the solutions mentioned may be obtained at 116 King Street, West, Toronto.

hotel-keepers. At the same time, if the rules are not observed, and a fatal accident should occur, the coroner will be enabled, in the exercise of his duty, to show where the responsibility rests.

(1). Iron gratings, 12x12, should be inserted in the walls above bedroom doors. Fanlights, which are commonly used for the purpose of ventilating bedrooms, are considered by some to offer too great facilities to thieves or other improperly disposed persons. An iron grating, firmly bedded in the wall, would be free from this objection, and while helping in the general ventilation of the room, would enable the hotel officials to observe if gas was burning in the room or if it was escaping. In addition to this, where chimney flues do not communicate with bedrooms, special ventilating flues, reaching to the outer air, should in all cases be introduced.

(2). Whenever any kind of illuminating gas is used in a bedroom, a suitable automatic cut-off gas burner should be placed on every gas fixture. Dr. Henderson, of Winnipeg, has, as you are aware, exhibited to us a valuable invention of this kind, a description of which will be found at page 105 of the Annual Report of 1886. Your committee do not consider it necessary to describe several other inventions, more or less meritorious, which have been devised for the purpose of preventing accidents of the kind in question. Dr. Henderson's is clearly superior to any that we have seen or heard of, and is the only one which can be recommended to the public.

(3). The gas should never be turned off at the meter, except during the repair or refitting of the pipes.

(4). It ought to be the duty of some responsible person to move about the different flats of the building, during the night, at periods of two hours or oftener, in order to ascertain if gas is escaping.

(5). A periodical inspection of all gas fixtures, pipes and burners should be made by an inspector of plumbing, who should be appointed at the recommendation of the Local Board of Health.

Owing to the importance of the subject and the ease with which the recommendations here given could be carried into effect, your committee would suggest that representations be made to the Ontario Government, asking them to provide legislation which will enforce the provisions of this report.

All of which is respectfully submitted.

J. J. CASSIDY.
FRANCIS RAE.

REPORT OF THE SECRETARY *RE* INSPECTION OF NEW GROUNDS FOR CEMETERY AT BRADFORD.

To the Chairman and Members of the Provincial Board of Health:

GENTLEMEN—I have the honor to present my report of an inspection (made under Sec. 16. Chap. 7, Vic., 1887) of the various parcels of ground under consideration from which to select a site for a cemetery. This amendment of the Act respecting Cemetery Companies, Chap. 170, R. S. O., provides for the establishment of new cemeteries under certain conditions, stated therein in incorporated villages.

By arrangement, I visited Bradford on Aug. 4th, and met Dr. Taylor, Medical Health Officer, and various members of the Council and Local Board of Health. With them I visited the various proposed sites, and after inspection thereof and consultation with the aforesaid gentlemen, suggested that the most natural method of procedure would be for the Council and Local Board to meet and pass resolutions stating which site would best concur with their views and those of the villagers whom they represent, after which it

would be in order for them to inform this Board of their decisions, when, should no sanitary objections to the site selected by them be taken by this Board, their selection and purchase of any particular site would constitute a legal act.

This suggestion has been followed, and I have herewith attached the resolutions adopted by these two bodies. For reference read resolutions passed by the Council and Local Board of Health of Bradford :—

Moved by James Driffill, seconded by Robt. Bingham, that the lots owned by Thomas Driffill and James Goodchild and submitted by the Bradford Cemetery Co., for the approval of the Local Board of Health, are, in our opinion, suitable for use as a a public cemetery.—Carried.

I hereby certify that the above is a correct copy of a resolution passed by the Local Board of Health of the Village of Bradford, this seventeenth day of August, 1887.

ROBT. STEWART.
Secy. Local Board of Health.

Bradford, 17th August, 1887.

From the resolutions it is apparent that there are two sites either of which, in their opinion, will be a satisfactory one for a cemetery. Inasmuch as both are, with the present size of the village, in my opinion practically free from any sanitary objections, it would seem to fulfil the duties laid upon this Board in the matter, if it were to adopt a report approving of the selection of either the Goodchild or Driffill plot. There are, however, several considerations which make it appear desirable that this Board should regard the powers which are given village corporations by this Act of Statutes of 1887, in the same spirit which caused the original Acts contained in the R. S. O. to be passed. which spirit is still further exemplified in Chap. 38, Stat. 1885, *re* the expropriation of land for public cemeteries.

In the latter Act it is provided that should any person object, from any cause, to the expropriation of his land for cemetery purposes, that arbitrators be then appointed to decide whether in their opinion it is necessary that such expropriation should be made, and if such be found necessary, that the price be thereafter fixed thereupon.

Private individuals are again protected by Sec. 3 of the same Act, which says that no land in city, town or village, within two hundred yards of any dwelling shall be expropriated without the consent of the owners thereof.

From these clauses, referring especially to the enlargement of existing cemeteries, (which enlargements, indeed, both from the standpoints of convenience and sentiment, are more reasonable than the establishment of new cemeteries in incorporated villages) in which regard is had to objections which may be raised of a purely sentimental character, it seems to me that it would be, if not illegal, at least illogical, for this Board to be governed by one law in regard to the enlargement of existing cemeteries in villages, and by another in those cases where the question is one of establishing a new cemetery.

If this reasoning appear sound to the Board, it has then an easy task in selecting a lot. Mr. Goodchild's lot has a pleasant soil, and is a rising ground southward of the village, with drainage for the most part directly into the Holland River, and is, in every practical sense, outside the village. The Driffill property is also a beautiful plot, high, said to be dry, with a somewhat more tenacious soil, gently sloping toward the public road, which is lower than the plot under consideration. Drainage from it is along lower ground in the south-westerly part of the village, but cannot, I think, have any injurious effects on the village in its present extent.

Across the road from the Driffill plot are, however, two or three farm properties with houses within 200 yards of the front part of Mr. Driffill's plot. The following are the distances as forwarded to me by Dr. Taylor, Medical Health Officer :—From Driffill's field to Wm. Goodfellow's dwelling, 144 yards ; from Driffill's field to Fennell's dwelling, 120 yards ; from Driffill's field to Wm. Spence's house, 54 yards.

The Medical Health Officer has fully stated that two out of three of these parties have been seen, and they boldly object to having the cemetery on the Driffill plot.

Apart from the exceptions, which, it seems to me, can be fairly legally taken under Chap. 38, 1885, to the Driffill plot, there are no objections of a substantial character which I think can, from a sanitary standpoint, be taken to it.

I would recommend the adoption of the report with instructions that a copy of it be sent to the Bradford authorities. It will then be proper for the local authorities to come to a final selection with regard to the plot, having before them the various aspects from which the question may be viewed.

I have the honour to be
Your obedient servant,

PETER H. BRYCE,
Secretary.

Copy of resolution received subsequent to the report:

Moved by C. Dewson, seconded by C. Campbell, That the Bradford Cemetery Company, having submitted to this Council for its approval or otherwise, the following lots of land within the limits of this corporation as suitable sites to be used as a public cemetery, viz., the lot owned by Mr. Thos. Driffill, on Holland Street, and the lot owned by Mr. Jas. Goodchild, on Simcoe Street, (said lots having been examined by Dr. Bryce, Secy. Provincial Board of Health), are, in the opinion of this Council (either of them) suitable sites, from a sanitary point of view, for the purpose before mentioned.—Carried.

I hereby certify that the above written resolution is a correct copy of a resolution passed by the Council of the Corporation of the Village of Bradford, at a meeting held the 16th August, 1887.

ROBT. STEWART,
Town Clerk.

Bradford, 17th Aug., 1887.

REPORT OF THE DELEGATES TO THE INTERNATIONAL CONFERENCE OF STATE BOARDS OF HEALTH.

To the Members of the Board:

GENTLEMEN,—Your Committee appointed to attend the International Conference of State Boards and the International Medical Congress beg to report that they proceeded to Washington, arriving there on the 5th Sept., in time for the opening proceedings of the Medical Congress. The work of the sections began on the afternoon of the 5th, your committee devoting itself to the sections on Hygiene, Demography, and Climatology. The work of these sections was of a most interesting and practical character. The climatic relationships of disease were discussed at length, your secretary presenting a paper on "House Atmospheres." Dr. Dominguez Freire, of Brazil, presented an interesting and exhaustive paper on "Protective Inoculation Against Yellow Fever," giving statistics of results and microscopic demonstrations of the microbe.

The total number inoculated in 1885 and 1886 was	6,524
Total deaths after inoculation	8
Rate, one in	1,000

Deaths from fever amongst those not inoculated:—

Total deaths	1,667
Rate was ten in	1,000

In answer to questions, he stated his inoculations were made mostly in infected quarters, and in infected houses, and in these the inoculated had shown an immunity from the disease.

On Tuesday morning the preliminary meeting for organization of the State Board Conference was held. The roll of States was called, and reports of committees presented.

Amongst the subjects introduced was that *re* interstate notification of infective disease, by the committee of which your secretary is chairman. His report included a summary of the progress of the work during the year, and indicated its practical advantages in getting knowledge of outbreaks, and suggested points wherein the work was defective.

For the purpose of carrying out the views of different members of the Conference on the subject, a special committee was appointed to report at a subsequent session.

The following is a copy of the report introduced and subsequently adopted:

The National Conference of State Boards of Health, lately in session in Washington, adopted the following in regard to Inter-State Notification of Infectious Diseases, which was unanimously adopted by all the States and Provinces represented :—

REPORT TO THE INTERNATIONAL CONFERENCE OF STATE BOARDS, *re* NOTIFICATION OF INFECTIOUS DISEASES.

Your committee begs leave to report the following resolutions :—

Resolved,—First. That the Conference reaffirms the principles contained in the resolutions adopted by it at its meeting in Toronto, 1886.

Second. That those communicable diseases hereinafter mentioned, prevalent in certain areas, or which tend to spread along certain lines of travel, be reported to all State and Provincial Boards within said area or along said lines of communication.

Third. That in the instances of smallpox, cholera, yellow fever and typhus, reports be at once forwarded either by mail or telegraph, as the urgency of the case may demand ; and, further, that in the instance of diphtheria, scarlatina, typhoid fever, anthrax or glanders, weekly reports, where possible, be supplied, in which shall be indicated, as far as known, the places implicated and the degree of prevalence.

All of which is respectfully submitted.

PETER H. BRYCE,
HENRY B. BAKER,
J. BERRIEN LINDSLEY,
BENJ. LEE,
J. T. REEVE,
E. M. HUNT,
} *Committee.*

The officers for the ensuing year are President, Dr. J. N. McCormack, Bowling Green, Ky., and Secretary, Dr. C. A. Lindsley, New Haven, Conn. It is earnestly hoped that local health officers will report at once by telegraph, telephone or mail, any cases of the disease mentioned in the resolutions to this office, so they may be reported to contiguous States. Thus by being promptly forwarded, States and localities may the more effectually ward off these diseases.

On the reports from States regarding health work during the year, there was a general evidence of advance in the appreciation by the people of the efforts of State and Local Boards in their behalf, and in the advance of health legislation. It may be fairly said, without fear of contradiction, that in no State or Province is health legislation more advanced than in Ontario, or the relations between Central and Local authorities so well defined or more harmonious.

After the work of the sections was over, a member of your committee spent a day in Philadelphia with Prof. Osler, of Pennsylvania University Medical College, and had an opportunity of examining with him the infusorial forms which can be demonstrated

in the blood of persons suffering from malaria. While these discoveries have somewhat lessened the growing belief in the existence of the *bacillus malariæ*, still the capacity of such infusoria for development in human blood, and their probable growth external to the body under circumstances similar to those in which bactera develop, indicate that whatever view may finally prevail, the prophylactic measures against malaria still remain the same.

Your committee, in concluding its report, cannot but express the feeling that the opportunities to mingle with men working out health problems under different phases and in different localities and climates, have a most stimulating influence upon those engaged in similar work at home, and further gives an opportunity for cultivating personal and friendly relations with men who at any moment may have to engage in a common work of fighting epidemic disease.

All of which is respectfully submitted.

FRANCIS RAE,
P. H. BRYCE.

REPORT OF DELEGATES TO MEETING OF AMERICAN PUBLIC HEALTH ASSOCIATION, AT MEMPHIS, NOVEMBER. 1887.

To the Chairman and Members of the Provincial Board of Health.

GENTLEMEN,—As your delegate to the recent meeting of the American Public Health Association, I beg to present the following report, in which I have endeavoured to systematize the subjects treated of under certain heads :—

Maritime Quarantine and Disinfection.—I found that all sanitarians with whom I came in contact were eagerly interested in watching the course of events at New York, and the developments arising therefrom. The first public allusion to the subject in connection with this meeting was the description of the President in his annual address, of his own experience on board a ship coming from Brazil where smallpox existed, which description I will give in his own words :—

" When I left Brazil in the month of August last, smallpox was epidemic both in Rio de Janeiro and at Para ; our ship touched at Para and five days later at Barbadoes. A passenger for this port was not allowed to land, because of the prevalence of smallpox in Brazil. Proceeding to St. Thomas, less than two days' sail from Barbadoes, our passenger was again refused permission to land, except to go to the quarantine station for a certain number of days. This was all right, but the conditions upon which he would be received seemed to me to be all wrong. Either he himself or the ship must guarantee the payment of the quarantine fees, which would be $3 a day for his board and $5 a day to the quarantine physician if he were alone. If others were at the station at the same time this fee would be divided between them. One can easily imagine what a hardship such a tax would be for a person of limited means, who had only provided himself with funds for the journey he had undertaken. The agent of the ship refused to take any responsibility, and our passenger had no resource but to submit to the imposition or to come on to New York, paying his passage to that port.

" As another illustration of the evils arising from the present system of supporting quarantine establishments, I will mention a circumstance which occurred upon our arrival at the port of New York. With the deputy health officer who boarded our ship came a man with a jug. I was informed by one of the officers of the ship that he was to disinfect the vessel. Being somewhat curious to know the method of disinfection employed I asked the ship's surgeon to go with me to inspect, when, after a detention of less than one hour, we had started from the quarantine station for our wharf. We found that the man with the jug had lowered a bucket by means of a rope through

one of the hatches between decks. Upon pulling up this bucket I found that it contained two or three pounds of some powder which had been wet, probably with an acid solution, and which gave off an odor of chlorine. No doubt when first lowered between decks there had been a considerable evolution of chlorine, but in the vast space to be disinfected, it was so diluted that at the end of an hour I did not detect the odor of chlorine gas when I lifted the hatch, and it was only by approaching my nose to the bucket that I was able to ascertain what disinfectant had been used. The most curious part of the story is that I was informed that the bucket had been lowered between decks to disinfect a quantity of hides which were stored in the hold. What was the object of this "disinfection?" Evidently not to disinfect, for no one at the present day would think of maintaining that the hides in the hold had been disinfected by the procedure of the man with the jug.

"The only object that I can conceive of, depends upon the fact that there is a fee for disinfecting which must be paid by the agents of the ship; at least I was so informed by one of the officers of the ship.

"Gentlemen,—We cannot control the action of the sanitary authorities abroad, and if we are ever so unfortunate as to be thrown into a lazaretto in one of those countries, where the rights of the individual are counted as nothing, God pity us! for the fact that we are American citizens will be of no avail. But we can at least correct abuses, if such exist, at our own seaports, and set an example to other nations of an enlightened policy, which will not only redound to our credit, but will directly benefit our languishing commerce."

"On the following day the discussion of the proceedings at New York was opened by a paper on "Cholera and Quarantine," by Dr. Rauch, Secretary of the State Board of Illinois. In the course of his remarks he referred to the dangers of the present time, and gave a detailed account of the correspondence which he had carried on with Dr. Smith (the health officer), and with the quarantine commissioners of New York. The inference was that the New York officials had not been straightforward in the matter.

During the discussion most severe comments were passed on the outrageous deficiencies of New York for dealing with infection imported in vessels; and in these comments Dr. A. N. Bell, of New York, emphatically concurred. His only defence was that everything had gone to decay, and that Dr. Smith had done the best he could with the resources at his command. The description given by Dr. Bell of the method of disinfection, even after some improvements had been introduced, showed how insignificant and inadequate are the means of protection employed in the commercial metropolis of the North American Continent; the contents of a ship disinfected by steam, in what may be described as a good sized steam tight box formerly used by some private firm.

In compliance with the resolutions passed at the last meeting of your Board, I drew attention to, and made enquiry regarding, the reports referred to in those resolutions. Dr. Bell replied that the cases reported as measles were unmistakable cases of measles. I also enquired whether the agreement entered into by resolution at the Toronto meeting regarding inter-state notification of smallpox and cholera had been carried out by the various States and Provinces. Dr. McCormack, on behalf of the Convention of State Boards, said that the agreement had been carried out by all States except New York. I may here mention that I was informed by Dr. DeWolf, with whom I spent some time in Chicago, that he had been obliged to disinfect baggage of the passengers from off the Italian vessel, the "Independente," on account of its not having been disinfected at New York. It was stated by the New York authorities that the baggage of the immigrants had been disinfected; but, whilst Dr. DeWolf did not wish to make any discourteous contradiction, he was obliged to act, because the immigrants in question told him that their keys had never been out of their possession, and the locks, of a peculiar make, and the contents of boxes had evidently not been disturbed. At the meeting various remedies were suggested, many of them having to do with the relative parts which national, state and local authorities should take. Some of them

were of a more immediately practical character. Among the latter was the plan advocated in a vehement address by Dr. C. N. Hewitt, of Minnesota, that "the screws should be put on New York through the railroad lines," the latter to be informed that their trains would be side-tracked at the boundary lines of adjoining States unless lists and destinations of immigrants, and satisfactory proof of inspection and disinfection were furnished. The following resolution by Dr. McCormack, of Kentucky, modified by the Executive Committee, was adopted :—

"*Whereas*, This Association has heard with regret that after four years of warning, Asiatic cholera found the authorities at the port of New York very inadequately prepared to deal with it; and

"*Whereas*, The faithful administration of the quarantine regulations of all ports, and especially at the port of New York, is at this time of the highest importance to the whole country; therefore, be it

"*Resolved*, That the quarantine authorities of our maritime ports be urged to exercise the greatest possible caution in admitting ships from infected ports to free pratique.

"*Resolved*, That these quarantine authorities be requested to co-operate with State and Municipal Boards of Health in the effort to prevent the spread of contagious and infectious diseases from ports at which they may exist by furnishing to the health authorities of communities having relations with such ports, prompt information as to all real or suspected cases, and if immigrants, their destination and routes of travel."

I believe the discussion was extremely useful, and that the various inland States will not submit to any nonsense in connection with this matter, but will be prepared to take the necessary measures for their own protection, even as our own Province did not very long ago.

Before leaving this subject I must express my satisfaction, as a Canadian, at the admirable showing, (in contrast with the condition of affairs at New York) which Dr. Montizambert was able to make in regard to the Grosse Isle quarantine, and that the Dominion Government has been prevailed upon to issue more comprehensive and stringent regulations. I am informed, however, that the quarantine officers are exposed to considerable danger in rough weather, and I am glad to be further informed that some of the members of your Board are actively interested in aiding Dr. Montizambert in his efforts to have erected a deep water wharf for disinfecting purposes, such as exists at the mouth of the Mississippi. This establishment and its equipments were fully described in an excellent paper entitled, "Quarantine Defence of the Mississippi Valley," by our friend Dr. Joseph Holt, a copy of which is appended to this report.

It seems to be understood that the immense revenue derived from the quarantine fees at New York—computed at from $70,000 to $100,000—is diverted from its proper purpose of securing the physical health of the American community, and is so placed as to bolster up the political health (?) of a certain section of the free and independent.

Inland protection has already been referred to. I considered the time of the advent of cholera on our shores a most opportune season to draw attention to, and try to abolish, the dangerous practice explained in the following resolution, which was adopted :—

"That this Association would press upon the attention of railroad, national, state, provincial and local health authorities the absolute necessity of abolishing the present system of scattering the excreta along the railroad tracks, and of substituting therefor some method whereby the excreta can be completely and frequently removed from the trains and tracks, and safely and properly disposed of on sanitary principles."

I need not dilate upon the present spreading of typhoid fever (and the future dissemination of cholera, if it passes the boundary) by the infected excreta blown about in the dust of railroad beds, or dropped into streams from which drinking water may be obtained. Such contingencies are not pleasant in any case or at any time. I would ask your Board to support the action of your delegate by at once communicating with the railroad and other authorities in regard to this matter. It might be pointed out

to railroad magnates that it would be much easier to adopt a proper system gradually, now, than to make rapid and extensive alterations should the advent of an epidemic compel you to enforce your recommendations.

Disinfectants were again reported upon by the committee appointed for that purpose. Some further experiments in destruction of micro-organisms by heat were reported, and these were of an assuring nature.

The chloride of lime solution was recommended to be made one-half stronger (6 oz. to the gallon.)

Attention is directed in Dr. Sternberg's address to the differences in resisting power of different germs, and of the same kind of germs under different conditions. It is somewhat consoling to find in this connection that the lease of life of the cholera germ is less secure than that of the typhoid (for both these individuals seem to have had their existence and identity confirmed during the last year.)

Inasmuch as all the reports of the Committee on Disinfectants are to be "Consolidated" (after the manner of our Revised Statutes), I will not enter at greater length into the subject.

Regarding the vitality of germs, some very interesting observations are made, and one of these has such a very important bearing as throwing doubt upon the accuracy of a method of testing the wholesomeness of water supplies which has been recently brought into use, that I quote it from Dr. Sternberg's address:—

"A more recent research is that of Kraus, who employed well water and hydrant water from the city water-works of Munich, which, without being sterilized, was infected with pure cultures of various pathogenic organisms diluted with distilled water. The infected water was kept during the experiment at a temperature of 10½ degrees C. Plate cultures were made from day to day. The results were as follows: The typhoid bacillus had disappeared by the seventh day, the cholera spirillum could not be found in plate cultures after the second day, the anthrax bacillus had disappeared at the end of four days; in the meantime the ordinary water organisms had increased enormously in number. From these experiments, considered in connection with those of Bolton and of Wolffhugel, Kraus concludes that the rapid destruction of pathogenic bacteria in non-sterilized water is a direct result of the action of ordinary water-organisms. If this be true it is evident that these water-bacteria are conservative from a sanitary point of view, and that the biological test of drinking water which gives the number of colonies which are obtained from a given quantity has no special value in the absence of an exact statement of the kind of bacteria and their pathogenic potency. The time has come when we must demand that those who undertake the biological examination of water with reference to its potability shall give some more definite information than that a certain number of colonies were found, some of which liquified gelatine and some did not. Up to the present time we have but few instances of the finding of known pathogenic bacteria in water used for drinking purposes. Koch found his spirillum in a water-tank in India, and several observers have reported the finding of the typhoid bacillus in drinking water. Recently Beumer examined the waterof four wells in a vicinity where cases of typhoid fever had repeatedly occurred. From one of these wells colonies were obtained by the plate method which proved to have all the characters of the typhoid bacillus. The distinguished German chemist Brieger has succeeded in obtaining a toxic ptomaine from cultures of the typhoid bacillus which has the composition C_7 H_{17} NO_2.

The following theory of Dr. Sternberg regarding the etiology of pneumonia is also worthy of note:—

"Evidence is accumulating that a micrococcus which I have described under the name of M. Pasteuri, and which is found in normal human saliva, is far more frequently found in the exudate into the alveoli during the acute stage of croupous pneumonia than is that of Friedlander. I first experimented with this micrococcus in 1880, and isolated it in pure cultures in 1881, but it was not until January, 1885, that I discovered its presence in pneumonic sputum and made inoculations in rabbits with this material. . . . The constant presence of this micrococcus in the buccal secretions of healthy persons indicates that some other factor is required for the development of an attack of pneumonia; and it

seems probable that this other factor acts by reducing the vital resisting power of the pulmonary tissues, and thus making them vulnerable to the attacks of the microbe. This supposition enables us to account for the development of the numerous cases of pneumonia which cannot be traced to infection from without. The germ being always present, auto-infection is liable to occur when from alcoholism, sewer-gas poisoning, crowd-poisoning or any other depressing agency the vitality of the tissues is reduced below the resisting point. We may suppose also that a reflex vasomotor paralysis, affecting a single lobe of the lung, for example, and induced by exposure to cold, may so reduce the resisting power of the pulmonary tissues as to permit this micrococcus to produce its characteristic effects.

"Again, we may suppose that a person, whose vital resisting power is reduced by any of the causes mentioned, may be attacked by pneumonia from external infection with material containing a pathogenic variety of this micrococcus having a tendency, permanent or acquired, greater than that possessed by the same organism in normal buccal secretions."

It is again gratifying to us as friends and fellow-countrymen of Professor Osler, to find him and Councilman of Baltimore credited with some "among the most important investigations of the past year," reference being made to their hunt after, and capture of the germ of malaria.

Protective Inoculation.—The Association has now entered upon another very interesting and useful field of labour. A committee has been appointed to make observations as to the further protection of individuals from serious epidemic diseases.

The Separate System of Sewerage.—I had ample opportunity of inspecting, through the courtesy of Col. Merriwether, engineer of the "Taxing District of Shelby County" (better known to us as the City of Memphis), and of his assistant, Mr. Ross, the peculiarities of the system so well-known to you (the small gauged sewers of the system excluding all storm and rain water); hence I need only describe some points new to me, and possibly to you also.

In the first place, the six-inch pipes recommended and used for small street sewers are found to be a mistake: they often become obstructed; a carpenter's rule, with its six-inch joints, is said to be frequently found as the obstructing cause.

Secondly, manholes—for inspection purposes, are being introduced here and there on account of obstructions.

Thirdly, rain water is often introduced surreptitiously, and the engineer has been obliged to provide increased accommodation.

Fourthly, they cleanse the sewers periodically by means of a "pill" and brush. This was to me a new and interesting device. The pill is a hollow ball of thin metal—say galvanized iron or copper—made three inches less in diameter than the sewer to be cleansed. A staple is attached to its surface. To this staple the end of a rope is fastened and the ball is lowered into the sewer through an inspection hole. It then floats down the sewer and can be held or pulled back a little if any deposit is encountered; the fluid, in order to get away must scour under the ball through the small opening between it and the sewer; the velocity is thus increased and the bottom of the sewer scoured. When the ball reaches the next inspection hole below it is lifted out, and the rope may be dragged through and made the means of dragging after it a brush a little larger than the sewer and which has been attached to the upper end of the rope at the hole above.

The last peculiarity to which I will allude is that the water contains so much earthy matter that the flush tanks are no longer left to the automatic action of a trickle of water, but are filled by an employee and discharged once or twice a day.

I may be allowed to remind you that the overhead ventilation of sewers is the mode employed in Memphis.

Pullman Sewage Farm.—Through the kindness of Dr. DeWolf I received a permit to visit the extensive car works of the City of Pullman, whither I was escorted by Mr. Genung, (a gentleman in charge of one of the departments of Dr. DeWolf's office), and accompanied by Mr. G. H. Allen, of the *Sanitary News*. We were kindly conducted through the workshops, sewage pumping house, water tower, and shown the various other points of interest in Pullman City by Mr. Duane Doty, civil engineer. On the following day I went out to the sewage farm, three miles east of Pullman City, and was courteously driven over it by Mr. E. F. Martin, farm superintendent.

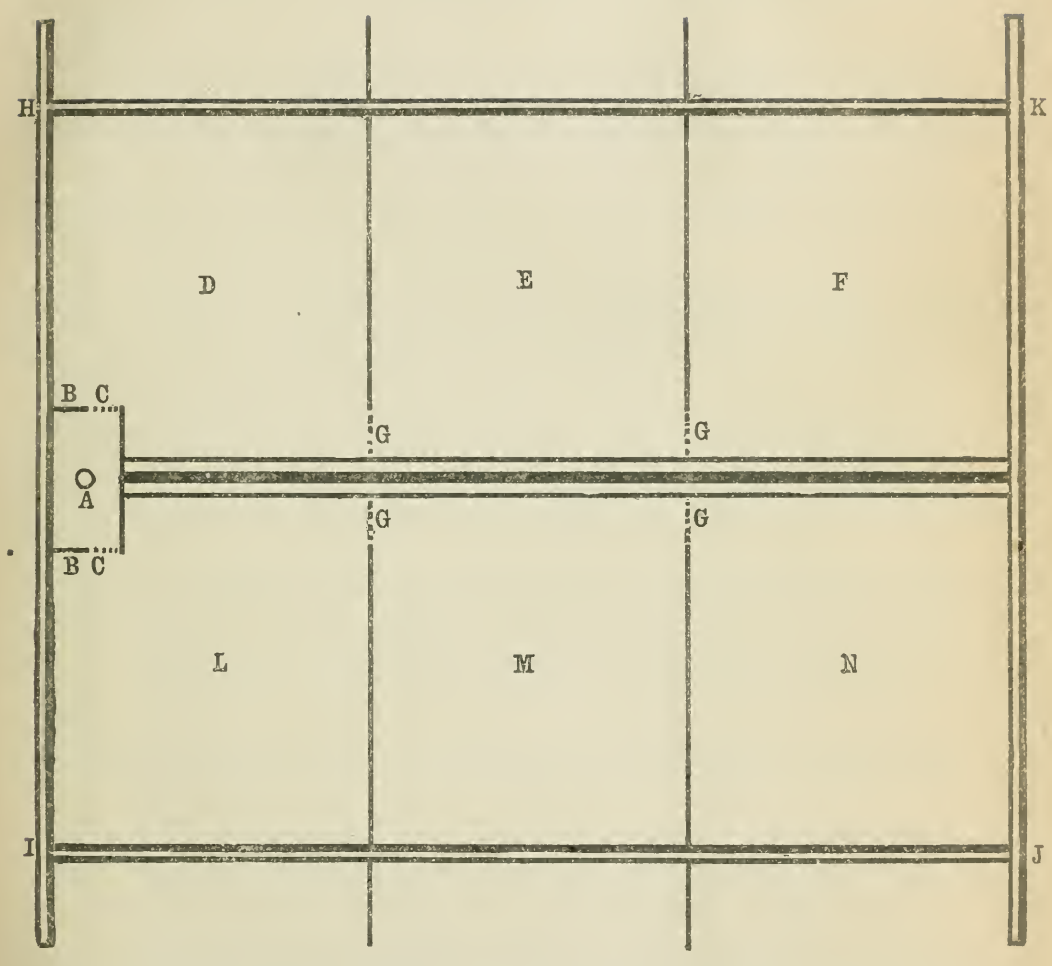
The City of Pullman is sewered on the separate system. The sewerage mains discharge 16 feet below the surface of the ground into a reservoir under the water tower. This part of the system is thus described by Mr. Doty :

"This reservoir holds 300,000 gallons, and the sewage is pumped from it as fast as received and before sufficient time elapses for fermentation to take place. The ventilation of the reservoir is perfect. Eight flues run from it to the top of of the tower above it, and a twenty inch flue leads from it to the large chimney which takes the smoke from the fires under the boilers of the Corliss engine. The sewage is pumped through a twenty inch iron main to a sewage farm about three miles distant, and at the farm end of this main the sewage goes into a receiving tank which contains a screen placed in a vertical oblique position, through which substances that of more than half an inch in diameter cannot pass. The pressure of the sewage upon the tile piping in the farm is not allowed to exceed ten pounds to the square inch. The sewage from dwellings now, March, 1887, amounts to 100 gallons a day for each person of the population. This seems a large amount, but when it is remembered that every tenement is provided with the best of closets and sinks, and ten per cent of them with bath tubs, and that the water taps are all inside the houses, it will be seen that a large amount of sewage per capita is unavoidable."

The receiving tank at the farm is elevated to such a height that a waggon can be driven under it and receive from a door in the bottom of it the solid matters, such as rags, boots, etc., that have been strained out. From the tank the sewage passes through vitrified tiles to hydrants distributed over the farm, in the proportion of about one to every two and three-quarter acres From these hydrants it is allowed to flow intermittently into different portions of the farm. The soil is underdrained by means of porous tiles, and the effluent passes into mains, and from them into a ditch which discharges it into Lake Calumet. The subsoil drains are placed nearer together than in most irrigation farms, the distance being about ft, and I should think from the nature of the subsoil and the configuration of the locality (which will be described hereafter) that this is absolutely necessary. Farms with a gravelly or sandy subsoil, and sloping towards the outfall, have a great advantage in this respect. From the experience he has had, Mr. Martin recommends that the subsoil drains should never be less than four inches in diameter. About fourteen acres are laid out in what may be termed the "flat-bed system." The method adopted may be understood by reference to the accompanying diagram :—

d, e, f, l, m, and n, represent a set of six beds enclosed and separated from the next adjoining set, by the thick turf wall *h, i, j, k*. The set of beds is graded to a gentle slope downwards from *h* to *k* (*i* to *j*). In the centre of the wall, *h, i*, is situate a hydrant O enclosed in a box *b b*, in which latter are two small sluice gates *c c* by means of which the sewage may be allowed to form into the bed *d* or the bed *l* at will, *d e* and *f* being separated from *l m* and *n* by a central turf wall. By the gates *g g g g* the sewage may be confined to the upper beds *d* and *l* or allowed to flow on into *e* and *f*, *m* and *n*. By this rush-like manner of application a more even and uniform application of sewage may be made. For the rest of the farm (there are 140 acres altogether), there is no grading, it is naturally flat, and the "broad system" of irrigation is employed.

I saw some of the effluent in the mains, and it was quite clean and inoffensive. Mr. Martin told me that he had one day discovered some railway labourers sitting beside the ditch, making use of the effluent to wash down their luncheon. They were surprised when warned of its character, and said it was the sweetest water they had found in the neighbourhood.



PLAN SHOWING A SET OF BEDS LAID OUT FOR IRRIGATION ON THE "FLAT BED" SYSTEM.

Mr. Martin gave me some valuable information as to the vegetation best and most profitable to raise. We have been accustomed to consider Italian rye grass as very suitable. Mr. Martin raised this in his first year and could neither sell nor give it away. It was so coarse and rank that stock raisers would not accept it as a gift. The vegetables which they found they can raise most profitably are celery, onions, and cabbage. Many other vegetables can also be raised. Potatoes cannot be grown at all, except as a decided failure.

In some years, the farm (besides being a profitable sanitary investment which it always is), has yielded as much as eight per cent. or over, but in other years— years of drought or of early frost it has yielded no direct profit; the outlay has never exceeded the returns.

The City of Pullman is admirably clean and well kept. I would like to refer to one of many things that I would note if time permitted, and that one thing is the excellent ventilation and absence of dust in the shops; over each dust producing machine in the process is a funnel; these funnels are connected with exhaust air-shafts, the exhaustion being produced by an extract fan situated over the boiler room of the great engine house. Into this room then the saw-dust is drawn, and it passes down to the boiler-room where it is burned. From an article by Mr. Doty I extract a few descriptive remarks :—

The city of Pullman is built scientifically in every part, and is exceptional in this respect. Here both the drainage and the sewerage preceded the population, and the soil is now as free from organic contamination as when it formed a portion of the open prairie. Every building, too, has been constructed from approved plans and under the supervision of competent builders and engineers.

The city is situated ten miles south of the city limits of Chicago and upon the west shore of Lake Calumet. The lake is about three and a half miles long by one mile and a half in width and drains through the Calumet River into Lake Michigan, which is a little more than three miles distant. The buildings already erected are upon ground which is from eight to fifteen feet above the level of the lake. The soil is a drift deposit of tough blue clay ninety feet in depth resting upon lime stone rock. The land gradually rises to the north and west to an elevation of twenty-five feet above Lake Calumet, this lake usually being from three to five inches higher than Lake Michigan. There is no land of a marshy character in the neighbourhood, the bottom of Lake Calumet even being of hard blue clay from which the best cream coloured bricks are made. It was deemed unwise to permit any sewage to flow into the lake, so the plan of drainage adopted is what is known as the *separate* one, and comprises two systems of pipes.

The fall is sufficient to secure good cellars or basements for all the dwellings of the city, the drain pipes leading from cellars to the laterals being at least eighteen inches below the cellar bottoms.

The parks and play grounds are all thoroughly drained. The lands surrounding the town are well drained by ditches.

The population of Pullman, October, 1886, was 9,000, and land enough is already piped for using the sewage of 15,000 people. The pumps at the pumping station can handle 5,000,000 gallons a day if necessary, and the iron main to the farm could carry the sewage made by a population of 50,000. These pumps are now required to handle a million and a quarter of gallons a day from the town and all the shops and public buildings. All the waste products of Pullman are carefully utilized, being largely transformed by vital chemistry into luxuriant vegetable forms.

Every provision is made for flushing and cleaning the sewers and for keeping them in perfect order. There is no town in the world where drainage and sewerage are so perfect as they are here, and the phenomenal health of the population is one of the results. Although supplied with the purest water from Lake Michigan, they do not look upon it as a benefit equal to that of the drainage and sewerage. Cases of zymotic diseases here are rare, and the death rate of the city was only 8 for every 1,000 of its people during 1886. The average death rate for most American cities is three times

that of Pullman, and the death rate for the whole world is placed at 32. Ample provision has been made for extending this system of sewerage and drainage to meet the wants of 100,000 people. Engineers, members of boards of public works, committees from common councils and legislative bodies from all parts of the country and Europe visit Pullman to study its construction and its sanitary advantages. It has become a recognized factor in all city building and in city extensions, and its great suggestive value is fully acknowledged and appreciated in both hemispheres.

Chicago.—To the courtesy of Dr. De Wolf I am further indebted for a trip to the water-works station. Additional works are now being constructed higher up the Lake.

Another project of great sanitary and engineering interest is the proposal to so deepen the water way to the heads of the Mississippi that a continuous cleansing current may be established from Lake Michigan to the Mississippi. At present this cleansing is partially carried on by pumping water from the river into the canal, but if too much is pumped the adjoining lands become flooded.

Chicago is also experimenting in the cremation of garbage, but as I have been asked by Dr. Bryce to read a paper on this subject at the forthcoming meeting of the Association of Executive Health Officers of Ontario next month I have purposely omitted reference to the discussions on the subject at Memphis and elsewhere till that time.

There were other papers and subjects discussed at the meeting of the American Public Health Association to which I would also gladly have referred had time and space permitted.

In concluding this report I wish to place on record my thanks to the various gentlemen mentioned in this report for their kind offices as set forth therein.

All which is respectfully submitted.

WM. OLDRIGHT.

APPENDIX

CONTAINING THE

ANNUAL REPORTS OF LOCAL BOARDS

IN THE VARIOUS

MUNICIPALITIES OF ONTARIO.

APPENDIX

The Appendix contains a condensed summary of the reports of the municipalities throughout the Province which by statute are required to transmit annually the Reports of their Local Boards. They include the reports of 9 cities, 27 towns, 33 villages and 173 townships, or 47 per cent. of the organized municipalities of the Province. The reports are of a very satisfactory nature, showing more complete organization of Boards than ever before, more exact methods of work and a more comprehensive and extended idea both of the work coming within the scope of the Boards and of their powers for carrying it into effect.

The reports while showing, in some instances, how much can be done, in others show how much there is yet to do. Taken as a whole, however, they show an amount of executive local health work most creditable to the Province, and which in some instances may well serve as models for other Provinces, and even some States where Health Boards have been in existence much longer than in Ontario.

ANNUAL REPORTS OF LOCAL BOARDS OF HEALTH.

CITIES.

Belleville.

Medical Health Officer's Report.

As Medical Health Officer of the City of Belleville for the year 1887, I have the honour to report as follows:—

At the request of the Board, I had the orders issued for the cleaning of yards and the emptying and disinfecting of water-closets, which was fairly responded to. I made a personal inspection of parts of Front Street, and inspected the slaughter-houses regularly during the season; at first, some of the butchers did not feel inclined to respond to the request of the Board, but upon shewing them that the Board was determined to carry out the requirements of the Public Health Act and upon insisting that the slaughter-houses should be regularly and systematically cleansed and disinfected and not allowing the accumulation of offall or other refuse matter about the premises. The butchers also seeing that it was for the protection of themselves, as well as the general public, came into line and assisted myself and the Inspector to carry out the requirements of the Act. And so satisfactory was this done that during the whole of heated term very few complaints were made either to the Medical Health Officer or the Inspector.

I may again say that during this year I have received numerous anonymous complaints, but could not act on them. The law is perfectly explicit and requires a complaint to be made by the party aggrieved, in writing, with his name attached, not for the purpose of publicity, but simply something to show that the complaint is of a *bona fide* character, and upon which the Inspector could act.

The Inspector has found great difficulty in performing his duties, owing to parties being unwilling to assist him in giving evidence against parties who have violated the law by depositing night soil and other refuse on vacant lots within the city limits. They complain of the nuisance, and in some instances, knowing the parties, would not assist the Inspector to convict them. I would again draw the attention of the Council of the absolute necessity of at once procuring a proper place for the depositing of night soil and other noxious matter.

During the year the city has been at considerable expense by removing night soil and other refuse deposited during the night time on vacant lots in the city. I would again request the city to either pass a by-law licensing one or more scavengers for the city, or make such parties register, so that the police would know who was doing such work, and by that means could detect such parties guilty of such breach of the Public Health Act, as well as the city by-laws.

I am glad to see that the city has responded to the repeated requests of the board, and has had a complete survey of the city made for a thorough system of drainage, and trust that no time will be lost in submitting the plans of such system to the Provincial Board of Health for its approval; the water-works will be in operation next year. Drainage, therefore, is an absolute necessity.

I must again congratulate the Council on the healthy state of the city for the year 1887. Whilst other cities are suffering more or less from diphtheria and scarlet fever, we have so far escaped, there not having been one single death or a case reported of

either of those dread diseases since January, 1887. There has been more or less fever during the months of September and October. The profession is divided as to its character, some maintaining that it was of a typhoid character whilst others contending that it was malarial. The mortality was very low. There has been three deaths recorded as from malarial fever, and only one case of typhoid fever early in the year. This is a remarkable shewing in contrast with other cities, in a great many of which scarlet fever, diphtheria, and typhoid fever is prevalent during the whole of the year, and speaks well for the City of the Bay. I only trust that we will keep up the reputation of our city, which can only be done by extreme vigilance and a thorough and fearless enforcement of sanitary laws, in which any inhabitant of the city is as much interested as your medical health officer, and hope that past efforts and success will not make us careless, but with renewed energy and determination, we keep our city in the proud position she now occupies as having the lowest death-rate per 1,000 of any city in the Dominion.

I determined this year to have a thorough inspection made of the city, and a house to house inspection made. I therefore instructed the Inspector to visit every house, to look carefully after the source of water supply, inspect all water-closets and yards and premises generally, which was done.

The Inspector has been of great assistance to me, and the work done by him has been of a thorough character, every complaint has been cheerfully attended to and regular visits made to the slaughter-houses, hotel yards and all yards on Front Street. His attention also has been given to the market, and the improvement there is very gratifying. While his duty is some time of a disagreable character, his manner in the discharge of his duty has won him the respect of the citizens, and some who at first looked at him as wishing to be officious now see that he was simply doing his duty, and are willing now to do all in their power to assist him in the discharge of his duties.

I have had printed, in accordance with the Public Health Act, blank notices for infectious diseases and supplied every physician of the city with them. Also sending to each one of them a circular drawing their attention to the clause of the Act requiring them to notify the Medical Health Officer of any case of infectious disease, and trust that they will comply with the requirements of the law, as I have no option but on this neglect in so doing but to carry out the law. I hope that I will not be forced into such an unpleasant position, but that instead of putting obstacles in the way, they will do anything in their power to assist in the discharge of my duties and protect the health of the citizens.

R. TRACY, M.D.,
Medical Health Officer.

BRANTFORD.

Medical Health Officer's Report.

I have the honour to present the following annual report on the sanitary condition of this city, and on the sanitary work done during the year.

The whole number of deaths occurring within the city limits during the year was 212, or about 16¼ per thousand for a population of 13,000.

Of these 212 deaths, sixty-three or thirty per cent. were due to zymotic diseases, nineteen having been caused by diphtheria, eight by typhoid fever, nineteen by cholera infantum, four by cholera morbus, and the remaining thirteen by other diseases classified as zymotic.

Of the nineteen deaths from diphtheria, nine occurred in the month of December, '86. So that up to November 1st of the present year, the actual number of deaths was ten, during the ten months; two of these were in October, leaving eight cases of fatal diphtheria for the nine months from January 1st to October 1st, which corresponds with the recent report of the Provincial Board of Health covering that period.

By amendments to the Public Health Act, made in the last session of the Legislature, more stringent regulations with regard to notification of contagious diseases and

to exclusion of children from school, coming from affected households, have been prescribed.

By the enforcement of these regulations it is hoped that the spread of diphtheria, as well as of scarlet fever and measles, by means of the schools, will hereafter be more effectually limited.

The spread of these affections by the agency of the Free Library, as well as by other circulating libraries and by school books, is also a serious danger.

The handling of books by children whose fingers are contaminated by diphtheritic discharges, or whose skins are exfoleating after scarlet fever, etc., and the subsequent circulation of such books, may justly be regarded with alarm.

Mr. Woodyatt has recently brought this matter before the Free Library Board, who have referred it to this Board for action. It is proposed, with your approbation, to take without delay the most effectual measures in our power to lessen this danger.

The steady persistence of diphtheria throughout the summer, the severity of the choleraic affections, and especially the continued prevalence of typhoid fever in Brantford this year, are all matters calling for serious consideration. For although the annual death-rate is very moderate, these affections are in a great degree preventable, and represent a large amount of unnecessary disease and death.

The canal basin has this year been filled with fresh moving water, and has probably not been a cause of increased disease.

The drinking water of Brantford, derived entirely from wells, which for many years has been for the most part either bad or doubtful, and necessarily growing constantly worse, has this year been worse than ever known before.

Owing to the unusual drouth the water in most of the wells has been extremely low, a large proportion of them becoming nearly stagnant pools, with little to feed them except the soakage of impure liquids from the surface in the near neighbourhood.

I think it reasonable to assume that had the canal basin been in the same bad state this year that it was last year, the amount of typhoid fever, etc., would have been so much greater than it has been.

Many illustrations might be given of the direct effect of this condition of the well water in producing disease. I will here only mention two or three.

In one dwelling near the centre of the city, the family used the water in their own well until it became very low and soily ; they afterwards obtained water from a well on the market square, which gave a larger supply, though of no better quality.

There occurred in this family four cases of regular typhoid fever, and one case of diphtheria. Of four visitors who resided with them for some weeks, three had diarrhœa soon after coming to the house, and one had diphtheria. Three remaining members of the family were not affected.

In another locality, half a mile distant from the above, in an area of about 300 rods, on which are eight first-class detached brick residences, with several stables, in use for a quarter of a century, and with no kind of drainage whatever. There were in five of these houses ten cases of regular typhoid fever, besides several cases which had some of the symptoms, though not severe—enough to require confinement to bed. One of the cases resulted fatally from perforation, and two of the cases are at present in the hospital.

In one of these dwellings there was also a severe case of typhoid last year, in which case the patient, a boarder, declared that the water "made him sick," and gave him diarrhœa on his first coming there.

In a third locality, remote from either of the above, there are two double frame tenements on one lot. In three of these tenements there were four cases of severe typhoid last year, and one severe case this year. The well on this lot was ordered to be filled up, and it was found that on pumping out the water for that purpose, the liquid in a deep privy vault, some twelve feet distant, at once disappeared.

I shall not dwell further upon this matter, because the urgent necessity of effective measures to provide Brantford with an ample supply of good water is generally realized, and because I believe every possible effort consistent with due caution is being taken to accomplish that object.

We can at present only hope that these efforts will speedily be successful.

Second only in importance to the question of water supply is that of *sewerage* and *drainage*.

It is surely extraordinary that a city of 13,000 inhabitants should have no sewerage whatever, no provision even in its most closely built places for carrying off foul liquid refuse.

At present I shall only take time to refer briefly to the subject, having expressed my opinion upon it before.

Sewerage for the central parts of the city is imperatively called for by every consideration of health, cleanliness and decency.

The Separate or Waring system of small pipes is the best for Brantford, and it is extremely cheap as compared with the combined or large sewer system. The sewers in this system are automatically flushed every day. No time is given for the generation of sewer gases. It is competent to dispose completely of the water in cellars, where this is required, and the cost of maintenance is trifling.

The property owners in the locality where it is most required, would gladly defray the larger part of the cost by a local assessment. In localities where the buildings have sufficient ground, sewerage is not required, and the assessment need not be imposed.

It is therefore earnestly to be hoped that when the capital necessary for water works is raised, the public will insist that a moderate addition to the amount required be made for this purpose.

The amount of sanitary work done during the last twelve months has been large.

Mr. James, the Sanitary Inspector, is an excellent officer, and has performed his very numerous and responsible duties in an extremely satisfactory manner. His books shew that he has made during the year, 843 house-to-house inspections, as against 620 in the previous year. This number is much greater in proportion to population than has been made in any other city in Ontario; it is more than twice the proportional number of inspections made in Toronto last year.

During the year, from November 1st to November 1st, 307 privy vaults have been emptied under the directions of the Inspector, and it is believed that this service is now being performed in a manner to cause no complaint either in the city or in the township.

Two hundred and seventeen complaints in all were entered on the complaint book in the Health Office, as against 155 last year.

Nearly all the various matters complained of have been satisfactorily dealt with. The imposition of a moderate fine in a few instances, has materially lessened the difficulty in enforcing compliance with the sanitary regulations.

The Sanitary Inspector has, during the year, inspected all the dairies supplying *milk* to the city. I accompanied him in the inspection of four of the largest dairies, and was well satisfied with the condition of the cattle and the byres, and with the character of the food used.

Notwithstanding a recent statement of Dr. Covernton, Chairman of the Provincial Board of Health, that the law with regard to milk inspection was practically only on paper, I have to state that whatever may be the facts in other places, the statement is not correct as to Brantford. No person here is allowed to sell milk without a permit signed by the Chairman of this Board. Thirty-three such permits, for dairies large and small, are now in force representing 351 cows, and no permit is granted for longer than six months.

Every one of these dairies has been inspected this year, and the results of every inspection entered in the book kept specially for that purpose in the Health Office.

The instructions of the Sanitary Inspector are to report forthwith any animal apparently ailing, in which case a veterinary surgeon must be sent to investigate. The certantity that the milk of tuberculous cows is capable of conveying disease to human beings establishes the importance of careful inspection.

It is very desirable that such inspections should be made more frequently, especially during winter and spring, and I confidently expect such more frequent inspections will hereafter be made.

EGERTON GRIFFIN,
Medical Health Officer.

GUELPH.

Medical Health Officer's Report.

In compliance with the requirements of the Public Health Act, I have the honour to lay before you my annual report on the sanitary condition of the city during the year ending 15th of November, 1887. The city has been remarkably free from disease. Diphtheria and typhoid fever prevailed to some extent, sixty-two cases of diphtheria and sixteen cases of tyyhoid fever have been reported during the past year; eight cases of diphtheria and two of typhoid have proved fatal. The number of deaths from all causes during the past year has been 159, which includes all deaths occured in hospital and gaol, giving a death-rate of 15.14 in a population of 10,500. The work of sanitary inspection has gone steadly on, and frequent inspections of slaughter-houses and cow byres have been made, the slaughter-houses in the city are found to be generally satisfactory. Complaints have been made several times about one or two and on investigation have been found not altogether without cause, and in one of the cases the inspector was obliged to bring the owner before the police magistrate. A large number of complaints have been made during the past year. With regard to the hog-pens against which so many complaints have been made, I am glad to say that they are fast decreasing. I would strongly recommend that some system be adopted for the removal of garbage, as it is now garbage is dumped here and there and everywhere to the great annoyance of the public. I think that scavengers ought to be employed and the whole of the garbage of the city cremated. During the past year the contractor for the removal of night soil has been kept well employed, 250 closets have been emptied and the contents removed to the nuisance ground, where it has been turned into manure and the greater part sold. No complaints have been made by any one this year regarding the nuisance ground, it having been kept clean and all smells kept down. During the year 100 dead animals have been taken from the river and streets of the city; they have been properly disposed of. It would be a good thing if some one could be caught in the act of throwing these animals into the river and have them punished, as they are a great nuisance and annoyance to those who are in the habit of boating. Only a few of these dead animals have been found above the water works, most all of them are on this side. During the month of July I gave instructions to have the river, from the Eramosa bridge to Allan's bridge, cleaned of weeds and other rubbish which was causing a very unhealthy smell. Complaints were made all through the summer about the bad smells arising from the banks of the river, caused by the water being drawn off at night for the electric light.

The creek, running from Present's mill-race and along Surrey street, was thoroughly cleaned in August last from one end to the other. During the past year twenty-five wells have been cleaned and six have been closed and city water used instead.

The Sanitary Inspector reports the following work done during the past year:

Number of yards examined	240
" water-closets emptied	250
" yards found in good condition	190
" hog-pens removed	17
" notices served for dirty yards and closets	49
" old wells closed	6
" analyses of well water	3
" dead animals buried	100
" complaints made at Inspector's office	150

Contagious diseases reported:—

Scarlet fever	26
Diphtheria	62
Typhoid fever	16
Houses placarded	88

Report of the expenses incurred by the Board during the past year :—

Removing nuisances and dead animals, and general work	$ 78 05
Cleaning out creek from Present's mill to river	33 00
Hire of horses and buggies for Inspector to visit places at a distance	5 00
Analysis of well water	4 00
Paid Acting Sanitary Inspector, G. Knowles, while Inspector was on leave	13 00
Advertising spring cleaning	2 70
Rent of nuisance ground	100 00
Stationery for office	6 25
Cleaning river	25 00
Printing bill heads and contagious disease cards	16 00
Total	$283 00
Amount granted by Council	$200 00
Amount overdrawn	83 00

In closing this report I beg to state that the Sanitary Inspector has performed his duties to my entire satisfaction.

THOMAS ANDREW KEATING,
Medical Health Officer.

HAMILTON.

Medical Health Officer's Report.

The inconvenience arising from making a report up to the date of presenting it is so great that I follow the example of other medical officers, and make the fiscal year end on the 31st of October.

During the past year 1,728 cases of contagious diseases were recorded at the Health Office, namely: scarlatina 177, deaths 2; diphtheria 205, deaths 31; measles 1,277, deaths 2; and typhoid fever 69 cases and 8 deaths. The corresponding months of last year (1886) gave scarlatina 109 cases and 2 deaths; Diphtheria 214 and 67 deaths; measels 3 cases, and typhoid fever 25, with 2 deaths. It will thus be observed that, although this year diphtheria cases are only nine behind those of last year, yet, the deaths are less than half, while scarlatina is sixty-six in excess, the deaths being equal. Typhoid fever cases are nearly three times as many and the deaths eight to two.

I have had a number of premises inspected, particularly where typhoid fever existed. Nothing more than the usual state of matters could be detected. I will give a few instances. —Three cases occurred in one family of nine members, reported to be very poor and dirty in their habits, to avoid expense a privy vault, situated in the shed near the dwelling, had been secretly covered over without first removing the contents. Five cases occurred in another house where the grading of the lot was towards the dwelling, slop water, suds, and hard to say what else were found running under the kitchen floor. Two cases occurred on Hannah Street, east of Catharine, which is situated on high ground; a privy vault was located within ten feet of the house, full and offensive, adjacent property contained two large double vaults, smelling badly; those vaults were wide and very deep, evidently intended by the owner to obviate the necessity of cleaning out for a quarter of a century, they were ordered to be cleaned out and subsequently to be filled in. I may here state that privy vaults should not be permitted so near dwellings when neither exigencey nor circumstances require them.

A few places were examined where no unsanitary condition of premises could be detected. One was the case of a man who had been engaged putting in sewer pipes; two

other cases were imputed by the family to weakness and hard work. Cases have been imported from different parts of the country, all of which help to swell our number.

Measles has been epidemic; all the cases which occurred were not reported, the disease was apparently light as only two deaths were recorded; in a few cases diphtheria appeared to be coincident or follow closely on measles—diphtheria and scarlet fever have been notified from the same house at the same time. Some cases of the latter have been so mild that no rash was noticeable, the disease being diagnosed from sore throat and peculiar condition of the tongue. I have great doubts that such cases will be sufficiently protective against a future attack. Notice of recoveries appear to me to come in too soon after report of the disease, frequently in less than a week, and in some cases before the skin has fully exfoliated. I do not think that any cases should be reported as having recovered until all danger of contagion had passed away. How long should that be? Our Provincial Board of Health *should settle that matter*; according to the amended Public Health Act of last session, Medical Health Officers are required to notify all schools of contagious diseases where children had been attending; they are also required to give certificates for them to return to school, in both cases any other physician can do the same, so that the attending physician and Medical Health Officer may be doing double work. In my opinion the work would be more satisfactorily done by the latter; the law was evidently devised by a lawyer, it is made as confusing as possible. With regard to the placarding of houses the rule ought to be made general, it looks somewhat redicilous to placard houses on Wentworth or Concession Streets, in the city, while the opposite side, in the Township of Barton, is privileged to go free, indeed the limits of the city should extend considerably south and east for sanitary as well as for other substantial reasons.

Having visited the vicinity of the Fergusson Avenue sewer on several occasions during this past summer, I have no hesitation in saying that your Board, under the circumstances and with the means at your disposal, adopted the best plan of allaying what was a most intolerable nuisance; at the several visits made I could find no more, nay not as much cause for complaint as those living in more populous parts of the city have to endure occasionally. I go further and say that the emanations arising from putresent excreta, fermenting in privy vaults, is far more pernicious to health than what escapes from the sewer in solid form when the latter is collected and covered with earth which destroys putrefaction; you have been reclaiming ground which will prove valuable for city purposes, a foot deep of earth over the ground already made would be advantageous.

Having accompanied your Board on two occasions during the year to inspect factories which were reported to be unsanitary, and seeing them in full operation, I was suprised to see how so much work could be done with so little nuisance; seeing the healthy look of those employed at the business I could not take upon myself to say that those factories were injurious to health, every precaution seems to be taken to render the business as less offensive to the public as possible. There are, however, certain idiosynerasies which are affected by strong odours, such as the rendering of lard, which otherwise does not appear to me to have anything pernicious in it. I belive that the principle complaint made against one factory was due to some very offensive smelling fat, which came by rail from Toronto and was carted through the streets; such an occurence is not likely to occur again. There are certain manufactures which cannot be carried on without causing more or less of a nuisance; as long as the latter are kept within bounds I do not see that your Board is required to do anything more. If the wishes of certain individuals were to be carried out the result would be to check industries now giving employment to the labour. Our sewers, however, should be protected from the entrance of such offensive matter as periodically causes our streets and houses, in certain localities, to be almost unbearable; our sewer should be flushed out more frequently and especially so in very dry weather.

The inspection of food, having recently been attended to by Inspectors Peacock and McKillop, I am pleased to be able to say that so far they have done good work in the interests of the general public, and no cheating in the market will be countenanced. I have seen some of the fowls confiscated by them and considered them unfit for food; those sent to charitable institutions were seized on account of breach of the by-law, all others were destroyed. The late respected Food Inspector was very energetic in his work; as

his duties were under a different Board I am unable to say anything about them. The Public Health Act and by-law now places the inspection of food under the Board of Health. I am not aware that any inspection of milk took place last year; to have that effectively carried out I would recommend your Board to adopt the license system, and none but those who can supply good milk from clean dairies should be licensed; milk is one of the most important articles of food and should receive strict attention as to the source of supply.

Inspector Peacock has compiled a statement of work done during the year, it speaks for itself. Mr. McKillop states that the scavenger work has been fairly carried out, but that there are yet too many complaints recorded, which must be stopped, or else that valuable work will get into disrepute.

As members of your Board may take some interest in statistical information I append a statement of contagious diseases by months and by wards, and also the number of deaths and rate of mortality by months. The deaths this year numbered 715, taking the population at 42,000, which is an under-estimate, the death-rate is 17.02 per 1,000. I also give a statement of the mortality for eleven years; I compiled it principally for the Dominion Medical Association, to let the members see that our death-rate was creditable. I am sorry to say that they seemed to take very little interest in anything but what was on their programme. I give it now as a correct statement. In 1876 it was rather difficult to make out the non-residents as no record was kept at that time of the place of residence, since then a full record is kept. The causes of death are, however, in many cases not reliable, as the superintendent has to take the cause from the person who came to have a grave opened. The cause of death is a very important item in mortuary statistics, and in all cases a physician's certificate of the cause of death should accompany the application for a grave; this is done in other cities, why not in Hamilton? The number of cases unregistered is very great, but I presume that it is no greater than it has been in other places.

With regard to the advent of cholera into this country next year, I am afraid that the germs of that disease have already got a footing on this continent, and from all accounts the sanitary precautions at New York are of a most unsatisfactory nature. Dr. DeWalf, the Medical Health Officer of Chicago, has pointed out that the real danger lies in clothing coming from infected countries, which receives little or no attention from the sanitary authorities; should the disease get established in the United States we may well be prepared for it in Canada, and take time by the forelock. I have been informed by the Secretary of the Provincial Board of Health that the medical report for 1886 was not forwarded in accordance to the requirements of the Public Health Act. It is to be hoped that it will be attended to in the future.

J. RYALL,
Medical Health Officer.

KINGSTON.

Medical Health Officer's Report.

I have the honour of submitting the following report upon the sanitary condition of the City of Kingston, in accordance with the Public Health Act; such a report necessarily will be brief while dealing with the many important sanitary questions:—

Water.—The first and one of the most important subjects, is pure water, which should be perfectly colorless, limpid, sparkling, sweet tasting and odorless in condition, such as entirely satisfactory drinking water ought to be. Now, before satisfactory results can be obtained, "in so far as our water-works go," it would be necessary to have the in-take pipe extended further out into the river, so that it may be free from any contamination arising from deposits out of our drains or other refuse matter surging along our shores, to make it more reliable. Now that the city has entire control of the plant, might it not be advisable to take into consideration the purchase of a filter, and thereby free the water, for domestic purpose, entirely from all organic matter, which cannot be overestimated.

I would also recommend the closing up of all polluted wells (which is a fertile source of disease) on line of streets wherever the water pipes are laid.

Ice.—The supply for domestic purposes, now used by our citizens, is taken much further out in the river than formerly, in clear deep water, thereby being more likely free from any organisms which might be found if cut nearer to shore and in shallow water, arising from the up-heaving of organic matter caused by the surging of the waves in the fall of the year; instances are on record of certain diseases being traceable to impure ice.

Milk Inspection.—The inspection of milk should be carried out, it being the chief article required by our infant population, and is one that fraud may be carried on to a great extent, there being little danger of detection by the ordinary consumer; milk should contain twelve per cent. of milk solids, and of that there should be three per cent. of fat; milk from the cow will register high (from 110° to 115°) and show by analysis from thirteen to fourteen per cent. of milk solids; water may be added until the lactometer register down to 100°, which will show the required per cent. of milk solids, less the three per cent. fat in the most of cases.

Drains.—During the year 1887 $11,449.56 have been spent in the construction of 2,680 yards of drainage added to our city sewers, which will prove of great benefit to the many localities through which they pass, but to carry it out to more perfection, would it not be well if our City Council would consider the advisability of constructing an intercepting sewer that might be emptied into Cataraqui Bay, thereby preventing the pollution of the water in our city front, rendering the air along our harbour free from the noxious gases escaping into it, caused by the decomposing organic matter flushed from time to time into the water at the mouths of the several drains.

Contagious Diseases.—Cases reported during the year, diphtheria, twenty; scarlet fever, eighteen; measles, forty-seven; typhoid fever, fourteen. Every case reported is referred immediately by the Sanitary Inspector to the proper authorities of all schools; then no child out of that dwelling is permitted to attend school until a sufficient length of time has elapsed and a certificate is obtained from the attending physician for its readmission. If active and prompt measures (isolation and disinfection) were applied at the outset in all cases of a contagious or infectious disease, we would look for the prompt suppression of diseases of this character.

Sunken Lots.—There are many lots in our city containing stagnant water, which is a great annoyance to residents in the several localities, and is certainly detrimental to health, which might be provided against by our City Council taking charge of the matter and compelling owners to fill them up, thereby rendering them more healthful..

Garbage.—A contract or agreement was entered into for the removal of ashes, garbage and all refuse matter, for a nominal sum, daily or as required; but I am sorry to say that many of our citizens did not respond to the call of aiding us in the carrying out of this most necessary work.

Vaults.—I wish to draw the attention of the board to the necessity of a house to house inspection by the Sanitary Inspector, who should keep a book in a tabulated form, showing the results of his work; the only accurate way of ferretting out nuisances are necessities of all such inspections. During the year 332 privy vaults have been emptied, by permits, under the odorless system (by contract) and removed to a distance in the county, and placed on land for fertilizing purposes, or buried in trenches and taken charge of. Privy vaults should be built water tight and be cleaned out at least once every year, and kept properly disinfected, thereby aiding in the prevention of preventable diseases which exist in our midst. Many of our privy vaults are built in such a manner as to be receptacles for all waste water, and being flushed into our public drains, causing stoppages in the dry season, resulting in the escape of noxious gases into the atmosphere, making it unbearable at times.

Parties making use of drains for such a purpose, do so at the expense of the health of citizens, and to save themselves the expense of cleaning their receptacles.

All leaking privy vaults should be abolished, as they saturate the soil, poisoning that, and contaminating the wells close to them, thereby rendering them dangerous and fruitful sources of diseases.

S. H. FEE, M.D.,
Medical Health Officer.

LONDON.

Medical Health Officer's Report.

I have the honour to lay before you my annual report for the year ending November 15th.

No epidemic visited the city during the year, and only four infectious diseases. There were 455 deaths from all causes. Taking the population of the city according to last year's assessment returns, at 26,500, places the death-rate at a fraction over 17 per 1,000. Taking into consideration the large number of people from the rural districts, who come to the city to avail themselves of its hospital and charitable institutions, this is an exceedingly low death-rate, and speaks well for the sanitary condition of the city. Of the infectious diseases, 102 cases of diphtheria were reported at the Health Office, and thirty-five deaths. Of typhoid fever, there were sixteen cases reported, and seven deaths, which shews that all the cases of typhoid fever were not reported, many of them being conveniently credited to malarial fever, a non-contagious disease, otherwise this would be a very high death-rate. Of scarlet fever, there were eleven cases reported, and no deaths. Taken by wards, eleven cases of diphtheria occurred in the 1st ward, seven in the 2nd, twenty in the 3rd, twenty-one in the 4th, and forty-three in the 5th. Of typhoid fever, five caseses were reported from the 3rd ward, two from the 4th, and nine from the 5th, none being reported from the 1st and 2nd wards. It will be noticed that those wards farthest from the river suffered to a much greater extent than those adjacent to it.

The inspection of milk, cow-byres and drains, commenced during the year, in accordance with the by-law, is being very thoroughly carried out, resulting in a marked improvement in the quality and cleanliness of the milk. Many of the suburban milk vendors do not purchase straw for bedding purposes, and not having land to raise it, the cows, in consequence, become filthy. Where this is the case it is almost impossible to have clean milk. The by-law is being strictly enforced, and will, no doubt, result in the cancellation of the licenses of many of these small milk-vendors. This is so universally used as an article of food—to say nothing of its power of conveying infectious diseases—that careful and frequent inspection is necessary in the interests of the public health, and the importance of having a pure supply, especially in the saving of infant life, cannot be over estimated. Sixty-seven permits to obtain licenses have already been given, subject to cancellation for infraction of the by-law.

A number of bad wells and cisterns have been closed during the year. The city waterworks system is gradually pushing these wells out, but not fast enough. Well water is so liable to contamination from surface drainage, pollution through the soil from water-closets and other sources, that wherever the city water is available they should be prohibited.

The unsanitary condition of London West calls for the serious consideration of the citizens of London. That suburb is in a very unsatisfactory state, and a source of danger to the city. The second Medical Health Officer appointed during the year, has resigned, and it is not now likely that any intelligent system of sanitation will be carried out. Cholera is in New York City. The winter will no doubt check it, but should it visit this continent in the spring, as it has before, it will find no more favourable breeding ground than London West. The best, and probably only way to remedy the evil, would be to annex it to the city. It would then be put in proper condition.

T. V. HUTCHINSON, M.D.,
Medical Health Officer.

OTTAWA.

Medical Health Officer's Report.

In laying this before you, my annual report for the year ending October 31st, 1887, I must apoligize for its briefness, necessitated by the amount of labour devolving upon me and other circumstances beyond my control. The public health throughout the year, as evidenced by the decrease in mortality as compared with last year, which appears in the mortuary returns here appended, is a fair subject for congratulation. It is a pleasure to note that during these twelve months, the community has enjoyed comparative immunity from epidemic diseases, and the mortality among infants has been considerably less during this than in the summer of 1886.

Diphtheria, which during the year prevailed extensively throughout the Province, did also in this community claim a certain number of victims, which would undoubtedly have been much more numerous had not the strictest supervision been exercised and isolation enforced either at domicile or in hospital, in all such cases known to the Department. I regret to say, however, as regards this, that I have to contend with much opposition from the people who are wilfully neglectful to notify the health authorities of the occurrence of such cases.

Typhoid, or rather enteric fever, of which we generally have a few cases, occurring usually during August and the fall months, did make its appearance somewhat earlier in the summer, probably owing to the peculiar meteorological state of the atmosphere which had prevailed since spring. The sanitary improvements carried out during the year in the city, were such as to clearly prove that the authorities are fully alive to the importance and necessity of such work. It is to be regretted, however, that as regards the laying of public drains, the law is such as to leave the decision of their necessity to the people, who, as a rule, in such matters are blind or indifferent to their owninterest.

Your Board should endeavour, at the next Session of the Provincial Legislature, to have the law so amended as to give health authorities full power to carry out any such work whenever deemed necessary. Whilst on this question of drainage, it will be sufficient for me to mention the desirability of having the Lewis Street drain, which now empties into the canal, connected with our sewerage system. The Board is fully aware of the necessity of this change, and no doubt it will be carried into effect during the coming winter. With a view of protecting the public from all possible source of danger, all milk vendors dealing in the city have been compelled to register their names at the Health Office, in compliance with the law in such matter enacted, with the object of causing an inspection of the premises, to inquire into the source of water supply, the condition of vessels and apartments wherein milk is stored ; also, the condition of cans, stables and character of food used. This work yet ramains to be done, except so far as dealers residing in the city, most of whom have been visited, and, as a rule, found to have premises ill adapted for this business ; in no instance, however, among these is the milk stored on the premises, but is immediately carried away and distributed to customers. At the demand of your Board, a by-law was passed by the corporation to regulate the ice supply, which very properly prohibits the cutting of ice for any purpose on the Rideau River. In accordance with this by-law, butchers can, if they wish, take their supply from the Ottawa River below the Chaudiere Falls, whilst all ice dealers must take theirs from above the Falls, and at a point sufficiently distant from the shores, to avoid the pollution of the now too famous Rochesterville Creek. Owing to the want of adequate help, the house to house inspection, with a view of enforcing health regulations and cause the removal of all unsanitary conditions, was not up to this fall done in a way to satisfy the requirements of sanitation, or minimise so far as it is in our power to do so, the development of preventable diseases. I am happy to state, however, that the addition to the health office staff of a competent sanitary inspector, since October last, will, I am convinced, contribute largely to the efficiency of this department. As evidence of the value of the work over which he exercises supervision, I here append a brief report of the work done by him during the first month of his connetion with the health office, in which is also shown the number of privy pits emptied during the year, as compiled

from the books of the assistant inspectors who superintend this work. The fact that 2,485 vaults were emptied last year is evidence that this work was fairly attended to; though not as thoroughly nor yet done within the time most desirable within which it should be done, that is winter months. The proper disposal of household garbage and a regular system of scavenging are sanitary questions in which the community is much interested and which will before long, it is to be hoped, be satisfactorily solved by carrying into effect the contemplated project, erecting a cremating furnace wherein all such offensive matter could be destroyed.

The hospitals for the isolation and care of patients suffering from contagious diseases are at all times available and kept on a very satisfactory footing. In the Protestant annex for contagious diseases there were admitted during the year forty patients, of whom thirty-four were discharged cured and six died.

In the Roman Catholic hospital, twenty-two patients were admitted during the same period, of which seventeen were discharged as cured and five died.

A. ROBILLARD, M.D.
Medical Health Officer.

RECORDS OF THE BY WARD FOUNDLING INSTITUTION FOR THE YEAR 1887.

Number of children remaining at the end of the year 1886	22
Admitted this year	153
Total	175
Children placed or discharged durin present year	50
Died during the year	109
Remaining in Institution	16
Total	175

Respectfully submitted,

A. ROBILLARD, M.D.

HEALTH OFFICE,
OTTAWA, 13th December, 1887.

Ald. WHILLANS,
Chairman of the Board of Health.

DEAR SIR,—My report of the work done in this department for the year ending 31st October, 1887, will necessarily be very short, as it will only refer to the work performed during the last month of the sanitary year, with the exception that I give the number of privy vaults, etc., emptied under the supervision of the Assistant-Inspector for the whole year.

For the removal of nuisances there were issued to proprietors seventy-two notices; to tenants, twenty-eight; for the removal of pigs, one; for the removal of dead animals, one; to prohibit carpet-beating, one; to prohibit the sale of milk, one; to disinfect dwelling-houses, one. Total 105. Privy vaults, etc.. emptied, 2,485.

The notice to proprietors include the following, viz. :—Houses unfit for habitation, want of drains, defectivley constructed drains, untrapped and unventilated soil and waste water pipes, sewer gas escaping into dwelling-houses, unhealthy work-rooms, want of privy or water-closet accommodations, accumulations of garbage and other dangerous refuse, badly constructed privies, damp cellars, bone boiling, etc. Those to tenants are principally:

filthy cellars, dirty yards and premises, foul sleeping apartments (through want of ventilation) having hens living in rooms, kitchen refuse and slops scattered everywhere. The latter, as I have already pointed out, is more the misfortune than the fault of tenants, as proprietors of houses to rent do not, as a rule, provide receptacles for such matter.

I am, Sir,
Your obedient servant,

GEO. McNEIL,
Sanitary Inspector.

STRATFORD.

Chairman's Report.

Early in the spring the Board caused the usual proclamation to issue, calling upon the citizens to clean up their premises, This, with very few exceptions, was cheerfully complied with.

Several complaints were made with regard to slaughter-houses, situate near the limits of the city, but upon request of the Board the owners promptly abated nuisances.

A few other complaints were received by the Board during the year, but in all cases the remedies were easily effected.

The sewers were flushed frequently.

The creek running through the centre of the city was cleaned out to above where any sewers discharge into it.

We had four deaths from diphtheria during the year, and one from typhoid fever; these were the only deaths from diseases of an infectious nature.

The Board is happy to say that very little disease existed during the year, and with above exceptions, of a mild form.

The mortality of the year has been again very low; only ninety-one deaths have occurred.

ISAAC RELGY,
Chairman.

ST. CATHARINES

Chairman's Report.

In accordance with the requirement of the Public Health Act, I have the honour to submit the fourth annual report of your Local Board of Health for the year ending November 15th, 1887.

During the year just closed, your Board has continued the closing of cess-pools, privy vaults, etc; also the removal of garbish from yards, lanes, etc.

This work has been done in a manner satisfactory to the public, both as regards the cost and efficiency.

The Inspector has made regular tests of the milk supplied by vendors, of whom there are fifteen.

The quality of milk is of good standard, and better than when first inspected.

Slaughter-houses are regularly inspected, and are found to be kept in very good condition.

Cow-byres have received regular and systematic inspection, and as a rule the cattle are in good order, well fed, and the premises in a very satisfactory state.

The hog nuisance has not been as great as in former years, and your Board would

again call your attention to the necessity of having the Public Health Act amended, so as to prohibit the keeping of these animals within the limits of any city.

The lanes and alleys have been kept in very good order during the year, but your Board would call your attention to a great nuisance committed by many people during the winter, viz., dumping ashes in the streets; this should be prohibited, and the offenders punished as the law directs.

Your Board note the fact with pleasure that the Welland Avenue drain has been extended below lock two, and that a system of drainage has been inaugurated in the western portion of the city, and we sincerely trust that the result which the most sanguine supporters of the scheme anticipate, will be fully realised.

Your Board trust that the work now under construction is being done in the latest and most approved manner, and that the drains will be provided with the necessary ventilation shafts, man-holes, etc., in order that the best results possible may be attained.

It may be hoped that the drainage of that portion of the city lying between James, King, Court and Church Streets. will not be neglected, and that the work will be proceeded with at the earliest possible moment, as it is well known that the thickly settled portion of Academy Street, between King and Church, is in a very bad sanitary condition for want of proper drainage.

Your Board desire to congratulate the Market and Building Committee on the thoroughly first-class manner in which they have carried out the suggestions of this Board *re* water-closets in connection with the city buildings and market grounds. This has been effected by the removal of the old closets and privy vaults and erection of a new brick building, which contains public closet and urinal, also closets for the caretaker and city officials. In order to make new closets efficient, a sewer was constructed from the city buildings down James Street, connecting with the Welland Avenue sewer.

The closets introduced are known as the Parson's trough system, and are of the latest and most improved character.

During the year the Board has had an analysis made of the well water on several streets of the city, and find that in almost every case the water is unfit for use, and your Board have decided to take prompt action, and have instructed the Inspector to see that the bad wells are closed up at an early date. as in case of cholera or other epidemic breaking out in our midst, the users of bad water would most assuredly be the first victims.

The residents of the city are to be congratulated on the satisfactory state of the public health during the past year. Fortunately the city has not been afflicted with any epidemic. It is true that diphtheria was more prevalent than during the preceding year, but the percentage of deaths even from this most fatal of diseases was very low.

The total deaths from all causes during the past year was 141, as compared with 174 the preceding year. If from this is deducted the following, which can hardly be charged against the death.rate of the city, viz., old age, ten, still born, twelve, and accidents, three, twenty-five in all, we have 116 or 11 6-10 per thousand of the population, which must be regarded as a substantiation of the fact that St. Catharines is one of the most healthy portions of the continent.

The following table will show the number of infectious and contagious diseases reported to the Board during the year ending November 15th—diphtheria, fifty-four; scarlet fever, ten; typhoid, three. The deaths from same diseases reported to the Board being as follows: diphtheria, three; scarlet fever, one.

Your Board regret to say that they find the burial certificates furnished to the city clerk, shew that two deaths from diphtheria were not reported to the Board by the medical men in attendance, viz., one in October and one in June; also that one death from scarlet fever in October was not reported.

The Sanitary Inspector has continued to perform his arduous and sometimes rather unpleasant duties to the entire satisfaction of the Board.

The Secretary has also performed the duties of his office in a most efficient manner.

GEO. C. CARLISLE,
Chairman Local Board of Health.

TOWNS.

Barrie.

Medical Health Officer's Report.

Regarding the health of the Town of Barrie during the present year, there has been very little of the serious epidemic diseases, which are known to be associated with unsanitary surroundings. Although there has been a good deal of typhoid fever in Ontario during the last few months, we have had almost none in Barrie—excepting five or six imported cases—all of those being ill with the disease when they arrived in town.

In my practice there has been no diphtheria, and I have only heard of one case in town. Whooping-cough and measles have been very prevalent, and some cases of mumps were noticed. Some cases of chicken-pox were also found in the schools.

There has been a little malaria and rheumatism, especially in a district of the town which was deficient in drainage ; but now, subject to an order from the Local Board of Health, is well drained.

Altogether, I think our town in the matter of health, will compare favourably with any town in the Province of Ontario, and it is the aim of the Local Health Board to keep it in that condition.

W. A. ROSS,
Medical Health Officer.

Bowmanville.

Secretary's Report.

The Town Council of this town appointed a Local Board of Health at the proper time, but no health officer. The Board made an inspection of the town in the spring, and ordered the cleaning up of some yards and closets that required it. Beyond that, nothing has been done. The health of the town has been good all the year.

R. WINDATT,
Secretary.

Brampton.

Secretary's Report.

The Sanitary Inspector has reported to Local Board the work he has done in connection with his duties. He visited 600 premises, and gives sanitary condition of each. He served notices in writing, on those neglecting to observe the proper rules, orders and regulations, and if the notices proved ineffectual, then he enters a suit to compel delinquents to obey the law, in which action the Board sustains him.

There were of diphtheria six cases, no deaths ; typhoid eight cases, two deaths.

The Board did not deem it neeessary or advisable to appoint a medical health officer, having two medical men on the Board.

The fact is that there was no possibility of making more exertion than that which has been made so as to effect a thorough sanitary state of the town, and, indeed, the inhabitants show much willingness in complying with orders of Board.

JOHN McCULLY,
Secretary to Board.

Chatham.

Medical Health Officer's Report.

Sixty-two cases of typhoid fever have occurred, six cases of which proved fatal.

Forty-six cases of diphtheria, five of which proved fatal.

Seven cases of scarlet fever, none of which were fatal; and seventy-three cases of measles, forty-one of which occurred in July; none fatal.

In addition to this there were five cases of whooping-cough and two chicken-pox.

Placarding houses where contagious diseases occurred has been thoroughly and systematically carried out. Much praise is due to the physicians of the town for their cordial co-operation and aid by promptly reporting cases. In this connection I would recommend that the disinfection of houses where contagious diseases occur, be systematically done by an officer of this Board, and not, as at present, be left to the family and attending physician.

Four hundred and eighty-two water-closets were cleaned out through the Inspector's order, besides those cleaned by the citizens of their own option, six wells were also ordered cleaned by him. There are ninety-nine dry earth closets in use, which are cleaned monthly.

I have made the necessary suggestions to the proper authorities as to remedying the unsanitary condition of the county gaol and police station, but they have been acted on in part only so far. The pollution of the river is involved in gaol nuisance, and the purity of the ice supply (which is near that point) threatened. The Marx building nuisance complained of by other tenants was abated, and many other lesser nuisances were investigated by the Inspector and myself and abated.

About the 1st October last, my attention was called to a rumor that most of the cases of typhoid fever occurred in families who received their milk supply from one dairy. I at once commenced an enquiry into the truthfulness of the report by directing the Inspector to visit each house in town where typhoid fever existed, and enquire where the milk used by the family was purchased. Out of the whole number of families afflicted (twenty), with the exception of three who purchased from unregistered parties, the milk was purchased from two dairies., and this directed investigation of the two dairies. On visiting them, I could find nothing to direct suspicion against the cows on the premises; the water for washing the cans, in one case, was procured from the river, in the other from a well, but it was stated that the water was first boiled, and used hot for cleansing the cans, etc. On further enquiry, I learned that one dairyman purchased milk from a man in whose house two cases of typhoid fever occurred and another case was still under treatment.

In the other instance milk was purchased from a man in whose family a case of chronic diarrhœa existed all summer. A greater number of cases were noticed on this man's route than on the route of the first mentioned.

While investigating, I pointed out to the dairymen the great necessity of using only pure water, and scalding out all vessels, etc., and since the investigation only two new cases of typhoid fever occurred. This is a significant fact, when we consider the number of milk vendors in town.

After careful consideration, I am fully convinced that the ice supply is a source of danger to the health of the town, as long as it is permitted to be cut inside or west of the town limits, unless proper precautions be taken against the contamination of the river; but it seems to me manifestly unjust to interfere with a legitimate industry and put its proprietors to great expense and trouble, because a few parties persist in violating the "Health Act" by contaminating the river; so I would recommend that steps be taken to restrain the High School, county gaol, and other parties offending, from emptying excreta into the river. I would indeed recommend as the only remedy that all parties emptying excreta into the river, creek or public sewers, be stopped from so doing. This should not be regarded as a special privilege they enjoy, but as an offence they offer to their fellow citizens.

WM. R. HALL, M.D.,
Medical Health Officer.

COLLINGWOOD.

Secretary's Report.

In compliance with the provisions of the statute I herewith present my report as follows :—

A Board of Health was appointed and organized in the beginning of the year, but have not since met. There has been no outbreak of contagious diseases reported in the town during the year. The sanitary condition of the town is fairly good, considering we have no system of sewerage. There is no regularly appointed Medical Health Officer.

JOHN HOGG,
Secretary.

CORNWALL.

Medical Health Officer's Report.

During the past year your district has been pretty free from contagious diseases in even an endermic form. As far as I can gather there have been in all not more than thirty cases, all told, of diphtheria and which were not of a very malignant form ; the few cases of scarlet fever and measles were altogether isolated cases and were of very mild form. There were in all not more than five or six cases of typhoid fever ; in all these cases the usual sanitary precautions were carried out by the physician in charge. In two instances schools were closed when diphtheria was in the neighbourhood. Some trouble was experienced with the owners of slaughter-houses, due to a combination of stubbornness and difficulty in disposing of the large amount of offal that had accumulated ; the only remedy I can see is in the immediate disinfecting and early removal of the refuse while in small quantities. Farmers would be glad to remove it for manuring purposes. I must congratulate the Board upon the needed reforms you have made during the present year in draining stagnant water, bringing in the dry earth system to replace the old fashioned vaults, bettering the sanitary condition at the schools, etc., thus lessening the threads of disease and limiting its spread. You are also to be congratulated upon the present good sanitary condition of the township, and upon having educated the people up to immediate compliance with your orders without needing the assistance of the law.

H. J. HARRISON, M.D.,
Medical Health Officer.

DUNDAS.

Medical Health Officer's Report

It is now more than three years since a Local Board of Health was organized in this town in accordance with the provisions of the Public Health Act, 1884. Since that time, notwithstanding the occurrence of epidemics of infectious diseases in all directions in the Province there has never been any outbreak of such here. A reference to the previous annual reports of the Medical Health Officer will show that hitherto typhoid fever and some types of malaria have been, with the exception of a few isolated cases, the only fevers from which we have suffered. The record for the past year differs but little from that of former years. Two cases of measles, both occurring in the same house and at the same time, were reported. Of scarlet fever there were also two cases, occurring at different times and in different localities. The source of infection in any of these cases could not be definitely ascertained. There were two cases

of diphtheria, one of the patients being a sailor having come home suffering from the affection. The cause of the other case has not as yet been ascertained. The disease was prevented from spreading any further. Fortunately the number of typhoid cases have been considerably less than last year and no deaths have been reported from it. In view of the hot, dry summer we have had more cases may be looked for should heavy rains occur and cause contamination of the wells by surface water.

The supply of many wells has completely failed owing to the unusual dryness of the season, and these should be regarded with suspicion when water again makes its appearance in them. As regards the reservoir, the supply from which ought to be one of the most important factors affecting the general sanitary condition of the town, although the efforts made to render it more efficient and to obtain a larger quantity of wholesome water for drinking purposes have been partially successful, still, up to the present time, the people of the town have not derived any additional benefit by having services put in their houses, or by the establishment of public fountains from which they could procure a suitable quantity and quality of water for at least domestic purposes.

As usual the Sanitary Inspector has been zealous in the performance of his duties, and probably nothing has been overlooked, so far as he is concerned officially, that might, under existing circumstances, reasonably be done to put the town in the most favourable condition to conserve the public health.

JAMES ROSS, M.D.,
Medical Health Officer.

GALT.

Medical Health Officer's Report.

In making this my annual report for the current year as Medical Health Officer, I have again to congratulate you on the good work done in the past year, and on the comparative freedom our town enjoys from epidemic diseases. In the early part of the year there were a number of cases of diphtheria reported, but in most cases was of a mild character, very few cases having proved fatal. Up to date there have been seventy-four cases of diphtheria, fifteen cases of typhoid fever and four of scarlet fever reported, with four deaths from the former and none from the two latter. During the summer season our town, in common with many others, was visited by an epidemic of dysentery that proved fatal in a few cases. The faculty were unable, in most cases, to give the cause as to where the largest number of fatal cases occurred; the water, when tested, showed no impurities, and the houses were all in a good sanitary condition. At the present time there exists a number of cases of diphtheria, which continues to spread owing to parents allowing their children to attend school while the disease exists in the houses; there should be more stringent means used to overcome this. I would strongly recommend that all houses in which contagious diseases exist be placarded, and in cases where physician or friends neglect to report cases they be dealt with as the Act provides, and I feel satisfied if one or two examples were made there would be no further trouble. It is gratifying to know that the town council are making every effort to secure a supply of good water, and it is to be hoped when the by-law is submitted it will carry by a good majority.

You will observe the few cases of typhoid fever there have been during the year. This, I think, may be accounted for by the careful inspection of wells and the closing of many that were unfit for use. I cannot close this report without expressing my regret that the council is not in a position to grant us a hospital, but live in the hope that some day, not far distant, that either the town, or some large-hearted individual living in it, will immortalize itself by following the example set in Brantford.

G. P. SYLVESTER, M.D.,
Medical Health Officer.

KINCARDINE.

Medical Health Officer's Report.

As health officer of the Town of Kincardine, for 1887, I beg leave to report as follows :—

During the year there has been of enteric, eighteen cases, none fatal ; diarrhœa, fifty-two cases, none fatal ; cholera infantum, four cases, none fatal ; cholera morbus, five cases, none fatal ; measles, twenty-six cases, none fatal ; whooping-cough, thirty cases, three fatal ; diphtheria, one case, not fatal ; intermittent fever, two cases, not fatal ; remittent fever, three cases, not fatal ; erysipelas, four cases, not fatal ; scarletina, two cases, not fatal ; mumps, one case, not fatal.

All of the cases of enteric fever were of a very mild type, and were, some of them, caused by impure water ; some few by nsing milk from infected house.

The general health of the town has been good.

BENJ. WALDEN, M.D.,
Health Officer.

LINDSAY.

Medical Health Officer's Report

You are legally constituted custodians of the public health, and the duties entrusted to your care in preserving and protecting the public health are very important. Immense strides are being made in sanitary precautions and measures ; the subject in all its varied phases is being intelligently discussed ; look in whatever direction you may, and you find that the best talent is being enlisted ; facts are being developed ; the agencies that favour disease, suffering and death being enquired into, and corrective measures, based on advanced scientific research, applied. As a result, material improvement is noticeable—epidemics that formerly depopulated whole districts are being stayed ; their character becomes less serious, and the death-rate, not only in Europe, but the United States and Canada, lessened.

It is a matter of regret to me, as it must be to your Board generally, that for some time past there does not appear to be that *entente cordiale* between the Municipal Council and your Board, which there should be in the interests of public health, in which you are both interested, and which should be carried out by the co-operation of both bodies in the greatest harmony. During the year important matters have engaged your attention, but receiving very little respect from the Council. I quote from the minutes of your meetings to exemplify this. On July 25th, the following resolution passed unanimously and was read at the Council Board : "That this Board recommend the Council to rent or purchase a lot on which a deep trench should be excavated for the reception of offensive accumulations in the town, and that a notice be put up at the place of such deposit directing all parties making them to cover them over carefully with the earth removed from the excavation, so as to avoid any offensive smells in the neighbourhood." In the face of the fact that during the month of May previous, your Inspector had reported the presence of scarlet fever and measles throughout the town, that he had placarded thirty-nine houses, and that the merchants and others had really no place to throw such refuse, you would naturally expect that the Council would at once accede to your reasonable request. Such, however, is not the case. They killed by simple neglect. Again, another resolution was formally presented, which received your hearty approval, "That the Board considered that Mr. Hughes had performed the onerous and at times uninviting duties appertaining to the office of sanitary inspector to the satisfaction of the chairman and members of the Board generally ; that the Board considered that to the vigilance of Mr. Hughes may be attributed the fairly good state of the public health during the present unusually hot season, and that this Board recommend that Mr. Hughes be con-

tinued in his present appointment until the end of the current year, and respectfully suggest that the appointment of Sanitary Inspector be made at the same time as the other officials of the corporation are appointed, and that this resolution be forwarded for the consideration of the Council." Yet, without further consultation, the Council saw fit to dismiss this officer, who enjoyed, as your servant, your confidence. As a consequence of this act, the work of your Board was seriously interfered with. Not only is this felt by you, but it is felt outside as well. In the small matter of the fornightly reports, neglect in their regular collection renders the bulletins issued by the Provincial Board incomplete, and the information intended for general instruction a blank as far as this district is concerned. I trust, indeed, a more happy feeling may be inaugurated, else, discouraged and dispirited, your Board will be without body or soul, without local habitation or name, will cease to exist, and that very shortly. I do not wish in any degree to reflect upon your new inspector; he is not wanting in intelligence. The duties "are, at times, uninviting," and require peculiar tastes and talents, not always associated with high breeding and refinement. In a report by your special committee, the advisability of boring for water on the height of land in the western portion of the town was advocated. I have great hope that the suggestion will be acted upon and that a plentiful supply of good water will be secured. With perfect water and sewerage system we may look for increased immunity from epidemic and endemic diseases in the future, and a uniform high rating of health. A year ago there were only two or three house ventilating with pipes and not one on the front street. During the past year some fifteen have been put up. As a result, complaints of smell from the man-holes of the main sewer, once so frequent and annoying, are now rare indeed. The improved system of sewerage once introduced, storm water will have better means of escape without admixture; and the main drain, once thoroughly flushed, will give little or no trouble. From your unfortunate experience I am the more impressed that your mode of election is not without grave cause of complaint, and that to be thoroughly efficient you should legally have control of necessary public funds. I hope this matter, which I have on every occasion advocated, will receive legislative approval.

P. PALMER BURROWS,
Medical Health Officer.

MEAFORD.

Chairman's Report.

The Board held its first meeting for the year on the 28th of March, 1887.

The only case of sanitary defect brought to the notice of the Board during the year was an open drain in the town, and which was remedied by the Town Council on complaint being made by the Board.

The Board are pleased to be able to report the present sanitary condition of the town as being generally good, and although there have been an unusual number of deaths in the town during the year, none have occurred from contagious diseases or from epidemic

JOHN GROOM,
Chairman.

NAPANEE.

Medical Health Officers' Report.

In accordance with the requirements of "The Public Health Act" of 1884, I beg to submit my annual report as follows :—

Your Health Inspector has, as usual, discharged his duties admirably well during the past year, and the Board has done everything in its power to place the town in as sanitary a condition as it was possible for them to do; yet, notwithstanding all this energy, contagious and infectious diseases have prevailed to an alarming extent, there having been reported since December last no less than thirty-six cases of diphtheria, of which nine had resulted fatally, or twety-five cent. of the whole number reported. This does not include a large number of cases which have occurred and were arrested in their progress by the attending physician during their early stages, and were, therefore, not reported to the secretary of the Board.

A low form of malarial fever has prevailed to a large extent, assuming, in some instances, a typhoid type. Four cases of typhoid have been reported and one death.

All these cases are correctly classified amongst preventable diseases, and they have undoubtedly had their origin in bad drainage and a deficient supply of pure water for domestic purposes, especially drinking water, and too frequently a total disregard of the ordinary hygienic precautions.

I entered so fully in my report last year of what was necessary to place the town in a sanitary condition, that it is not necessary here to reiterate my former statement, but simply to urge upon the municipal authorities the necessity of carrying out what was then suggested, as soon as the financial condition of the municipality would warrant them so to do.

ALLEN RUTTAN, M.D.,
Medical Health Officer.

NIAGARA FALLS.

Chairman's Report.

In accordance with the statutes in relation to public health, I beg to report that several nuisances have been complained of during the year, principally caused by defective drainage or want of drainage, and where such nuisances have been found to be deleterious to public health, your Board have acted promptly and have remedied the evils.

It is gratifying to be able to report that while contagions diseases have been raging in many towns in Canada, our town has, providentially, been almost free from these scourges.

In the few cases of contagious diseases which have occurred here, the Board of Health have immediately taken action, and have isolated bad cases, in accordance with the statutes and as directed by them. Physicians practising in the town have acknowledged the valuable assistance of the Board of Health in these cases, which has, to a large extent, they say, prevented the spread of disease.

I am happy to report that the general health of the town is good.

I would strongly urge the necessity of more public sewers. In covering the end of Muddy Run Creek the town has secured a most valuable sewer at a trifling outlay. The benefit of this sewer will be felt by three-fourths of the population of the north and centre wards.

I would urge the grave importance of putting in water-closets and the trapping off of sewer gas by those persons who reside, or have places of business on Bridge Street and Erie Avenue. Dr. Reade and I have examined these premises, and we are of the opinion that the sewer there in its present state (being open) breeds sickness, from which the people living on these streets have suffered.

The usual reports have been made, from time to time, to the Provincial Board of Health.

G. H. HOWARD,
Chairman, Board of Health.

ORANGEVILLE.

Medical Health Officer's Report.

Owing to the fact that neither Sanitary Inspector nor Medical Health Officer were re-appointed until the season had considerably advanced, those precautionary measures so necessary were not in the spring of 1887 adopted, and the garbage accumulated during the winter months, had already began to ferment and pollute the surface soil with its soluble materials before the domiciliary visits of the Inspector were made.

In reference to the most fertile source of typhoid—namely, the accumulation of the contents of privy vaults—it was impossible to do more than order the free use of copperas solutions, dry disinfectants, and the use of absorbents such as ashes and dry earth.

In the total absence of any system of sewerage, and the pollution of well water by animal and vegetable organisms, together with the extraordinary diminution of the water supply, and the consequent concentration of solids contained therein, we find the causes of the increase in cases of malarial and infectious nature which has been apparent during the months of August and September.

Complaint having been lodged concerning the nuisance created by the careless disposal of refuse in and around the egg-packing warehouse, investigation was duly instituted, and such instructions and orders given as were deemed necessary in the case. But, as I have reason to believe, these were evaded to some extent, and the nuisance will assume, with each succeeding season, an aggravated form. I would suggest that the proprietor be in future compelled to remove all waste materials beyond the limits of the town, and bury or cover such filth to a sufficient depth to prevent any emanations therefrom.

I have already insisted on the necessity of cleansing and disinfecting the two races which have contributed in no small degree to the spread of malarial and typhoid types of disease. At the same time, the Board should peremptorily order all drains emptying into these races to be supplied with proper filtering apparatus at their mouths. Moreover, the County Council should be notified that the accumulations from the gaol and court house must be conveyed by tile drains or other proper sewers beyond the limits of the corporation. There is not the shadow of a doubt but that the pollution of the bottom of the waterworks race by the sewage escaping from the county property, and the exposure of the saturated mud to the influence of the air and sun's rays, was productive of at least one case of typhoid fever, and one of diphtheria.

I append a table for the month of August, during which the unsanitary condition of the town reached its height, showing the number of cases of throat and gastro-enteric affections so far as could be ascertained. I was obliged, owing to the continued neglect in reporting cases to the Board, to procure this information by personal application to the medical practitioners. It will be advisable for the Board to enforce in future the compulsory powers vested in them by the Act. In addition, I append two lists of death from typhoid fever and diphtheria from January to September inclusive. The one, as you will observe, is made up from the information given by the undertakers; the other, incomplete and misleading, is derived from the Clerk, who should, if the law were properly observed, have complete and true record of all deaths in the municipality.

In reference to the placarding of houses where infectious diseases are present, I found that attempts at concealment were so successful that no reliance could be placed on such a means of isolation, excepting in the case of those patients under my own personal attendance.

Wherever a rumour has reached me of the presence of infectious or contagious disease in a household, from which were pupils attending our schools, I have invariably notified the teachers and called their attention to the recent amendments giving them power to suspend on suspicion in such instances, and have thereby, I trust, succeeded in preventing such extension of diphtheria as has occurred in other places, involving the closing of schools entirely. In view of the continued presence of contagious skin affections amongst the pupils of the public school, I would strongly urge upon the Board the

advisability of calling the attention of the Trustees to the importance of adopting a system of quarterly inspection.

A severe type of diphtheria has recently shown itself in the case of two families, wherein three deaths occurred. So far as can be ascertained, the cause of the outbreak in each was strictly local.

I enclose a circular issued by the Provincial Board of Health, regarding the inspection of dairies, byres, cheese-factories and creameries, and the licensing of milk vendors, which is of great importance, as it has been proven beyond a doubt that next to impure water, milk constitutes the most frequent vehicle of infection.

The prevalence of diphtheria and typhoid during the present year, and the numerous indications of the arrival of cholera ere long, render the adoption of all possible precautionary measures of vital importance. Although the mortality has been comparatively light, it is none the less needful that the predisposing causes of disease should be banished so far as lies within our power. I have already pointed out that another system of water supply than that in existence at present, together with thorough sewerage, are the modes by which a radical change for the better can be brought about.

While here and there a household may take all pains to cleanse and keep clean their premises and their water supply, even going so far as to boil or filter the drinking water, we do not know the moment when some wandering tramp may carry into our midst the seeds of a pestilence which, finding a soil suitable for the rapid propagation thereof, will result in a harvest of death.

I must again urge the importance of obtaining an appropriation from the Council for certain sanitary work which does not fall within the circle of obligations laid upon private citizens. In this connection it is extremely necessary that a more complete inspection from house to house be made, and to this end could not a more liberal allowance be granted to the Inspector? In some places the duties of assessor and inspector are performed by the same individual, who also possesses the powers of a constable, and the plan seems to be a good one.

CHAS. M. SMITH, M.D.,
Medical Health Officer.

Owen Sound.

Medical Health Officer's Report.

In the early part of the year nothing of importance required attention. Many minor complaints of nuisances of various kinds have been attended to, and the defects, as far as possible, remedied. Those of a more serious character received the attention required, and in some cases were prohibited.

The committee on the selection of a hospital, presented their report, stating the difficulty of fixing on a location possessing the advantages of isolation, water supply, drainage, etc. Also, dwelling upon the necessity, owing to an increased lake trade, of protecting our town from the possible inroad of an epidemic to which we may at any time be liable.

Many wells are still in use in the more densely populated portion of our town, the closure of which has been recommended, and the parties urged to have the town water taken into their houses. Some of the wells it may become necessary to close should the water still continue offensive, which is due, in some measure, to the dry season and the small quantity of water in the wells.

On the 15th of August a communication was addressed to the Council, calling attention to that portion of the creek which passed under the American Hotel, and expressing the hope that the creek will be filled up, as with the completion of the sewers it will be liable to become a general cesspool of the worst kind, without having the means of either flushing or trapping.

During the latter half of the year our town has again suffered from typhoid, perhaps in the present instance not depending so much upon local causes as upon the epidemic character the disease has assumed, pervading the whole Province, in some cases with

great severity; we have much reason for gratitude that in this locality the disease, though in some cases severe, has been generally unattended with a fatal termination.

In the spread of infectious diseases, it is to be feared that our milk supply, which is derived from various sources, both within and without the town, may be a ready factor. In 1886, it is known that milk supplied from a house infected with scarlatina, placed the lives of three children in jeopardy; and during August of the present year report stated that many cases of fever on Hill street might be traceable to a house three miles from town, from which milk was sold while the son lay ill with fever. Under these circumstances, it is worthy of consideration in the interest of all, that a strict surveillance be placed over the milk supply of the town, which is derived from between forty and fifty different sources.

The medical examinations of the town were made at four separate periods since last annual report, and it is gratifying to find that among the children attending the various schools, the cases of communicated skin diseases are gradually on the decrease.

At a meeting of the Local Board of Health held this fall, it was suggested that portions of the Public Health Act bearing directly upon the responsibility of individuals as to the notification of infectious diseases, be selected for the purpose of printing. A committee was appointed for that purpose, and the necessary portions selected, which the committee would recommend to be printed in sheet form, with a hint that the sheet be tacked on the wall in a conspicuous place. This is thought more necessary, as important changes have been made in the Act, rendering every householder sending children to school from an infected house liable to a penalty, and requiring that immediate notification be given the head master of the illness of the child in the family with any of the diseases enumerated in the Act. Estimating that there are about 1,500 heads of families in Owen Sound, two thousand (2,000) such sheets might be printed at a cost of about six or seven dollars, distribution would cost a small amount; but all misapprehension would be removed in regard to the meaning of the Act.

The sections recommended to be printed are sections 46, 49, 54 and 65 of the Public Health Act of 1884, and section 1 with subsections 2 and 3 of the amended Act of 1887.

ALLAN CAMERON, M.D.,
Medical Health Officer.

Paris.

Medical Health Officer's Report.

The town is to be congratulated on its freedom from infectious diseases, especially from those two which are in themselves an index of the sanitary condition of a place, viz., diphtheria and typhoid fever. Although both of them have prevailed to an alarming extent in many towns and cities of Ontario, our town has had but few cases of either disease, and a large percentage of those had contracted the disease in other localities. The Board held meetings as occasion demanded, and found their recommendations and instructions well followed, as far as private individuals were concerned. The old question of drainage of certain ponds, situated within the corporation limits, came up again, and once more drainage was recommended; but the Town Council failed to act on the advice of the Board, alleging as a reason that they had made no allowance for such expenditure as would be necessary.

Part of the mill race of the flats was cleaned out in September, the material, on its removal, being disinfected by a sublimate solution. The Sanitary Inspector made house to house visitations early in the summer, and found the condition of things in general satisfactory. Where this was not the case, he left instructions to remedy the evil, and on a second visit found that his instructions had been followed.

J. G. SUTHERLAND,
Medical Health Officer.

Parkdale.

Medical Health Officer's Report.

Since my election as Medical Health Officer on the 11th May, 1885, I have had both in my official capacity and otherwise, frequent opportunities of witnessing the rapid increase of Parkdale's size and population, and am pleased to report a great improvement in its sanitary condition, due, no doubt, to the prompt and energetic action of the Local Board, when any violation of the Health Act was brought under their notice, thereby causing the immediate removal or suppression of nuisances; and, also, by the educating of the great mass of our people as to the necessity of a knowledge of sanitary laws. The Provincial Board of Health has made marked strides in this direction—the only true way to extinguish epidemic disease.

We must look carefully to our easterly limits, as where the population of Toronto is so dense, and the huddling together of so many inmates in small tenements, we naturally must expect disease in all its forms to linger there, notwithstanding that the city of Toronto has an able medical health officer and a very efficient staff of assistants. Yet it becomes us to be constantly on the alert to repel that which, coming upon us so insidiously, would render many a home in our fair town desolate.

For your information I have herewith compiled a few statistics in connection with the Local Board of Health department: cholera infantum, 10; typhoid fever, 5; croup, inflammatory, 2; diarrhœa, 2.

There were seventy-six deaths from all causes during the year, and I think, taking into consideration our local population (nearly 4,000), and since the advent of increased travelling accommodation, thousands passing almost weekly during the summer months through our midst from other places of residence to the Humber, High Park, and Sunnyside, we can safely congratulate ourselves on the above exhibit.

I would like, as in my last report, to again call the attention of the members of the medical profession practising in Parkdale to Rules Nos. 2 and 3, Section 17, Schedule A, wherein they will perceive they should report to the Local Board of Health, or Medical Health Officer, within twenty-four hours all cases under their treatment in the municipality, such as smallpox, scarlet fever, diphtheria, typhoid fever, or cholera.

Neglecting any of these rules, they leave themselves open to a severe penalty. Besides, it hinders the successful working of the Provincial Board of Health, whose monthly bulletins materially depend on the regularity and accuracy of these reports to fix speedily the district which may be threatened with an epidemic.

The drainage system has been thoroughly enforced during the year and proper connection made with the leading sewers from many houses which were lacking in that accommodation last year. New sewers have been put down on several streets where buildings are rapidly springing up.

Frequent inspections of back yards, lanes and water closets, privies, etc., during the summer; and the scavenger removes all garbage weekly.

Our efficient Sanitary Inspector keeps careful watch over the lanes and highways. Very few complaints have been made in this direction this year.

In the erection of brick houses, large and small, special attention seems to be given by their owners to the conservation of heat, but the important matter of ventilation seems to be entirely overlooked. This gives me occasion to remark that in my observation the ventilation of the houses now erected is very deficient.

Ventilation is a science well worthy of investigation by our people of the present day. Living in close rooms, breathing the same atmosphere over and over again is a prolific source of various diseases.

I would suggest that Rule 6, Sec. 16, Schedule A be strictly enforced.

The privies and water closets in the municipality are well looked after. Dry earth in some and pits in others; they are in the majority of cases regularly and properly cleaned out and disinfected as often as desirable, and whenever a case of neglect, however, crops up, it is immediately looked after by the Sanitary Inspector.

Rule 1, Sec. 69, Schedule A, should be printed and distributed, as it seems to me the general public are not aware of such a clause being in existence.

In the matter of cow-byres and milk-vendors, creameries, etc., in this municipality, I would refer you to a circular just issued by the Provincial Board of Health as to registration, periodical inspection and enquiries in connection with the sale of milk in the municipality. It is well worthy of being acted upon, and for the safety and welfare of the young children especially, would recommend your Board to take immediate action thereon.

The cow-byres reported to your Board so many times during the year, and the frequency of complaints regarding them, makes it advisable that steps be taken for their removal not later than early next spring, frequent inspections to be made of such byres in the meanwhile and reports sent in as to their cleanliness, health of the cows, their diet, etc.

The attention of owners of tenement houses should be drawn to Rule 12, Sec. 69, Schedule A.

Some cases of this kind came to my notice this year when the water supply was insufficient and the owners were careless. There are very few wells in the municipality, and they are, in the majority of cases, outside of the more populated parts.

I would again draw the attention of the Board to the fact that we should have some better and speedier method of getting rid of our garbage than at present exists, more so on account of our increasing population.

I recommended last year that we should adopt the crematory plan at once, which would be of little expense in comparison to its usefulness.

I understand that proper precautions have been and are being taken to remove the difficulty complained of at Sunnyside, which, no doubt, will be a source of much satisfac tion to the water takers, and an advantage to the health of this municipality.

J. KNIGHT RIDDALL, M.D.,
Medical Health Officer.

PETERBORO'.

Medical Health Officer's Report.

In presenting the fourth annual report of the Medical Health Officer, I am proud to say that the town, during the past year, shows a lessening death-rate, a freedom from outside epidemics, and a lower ratio of infectious diseases than the majority of towns in the Province. The amount of sanitary work done has been large, and it is only fair to assume that this has contributed to a great extent in producing so gratifying a state of affairs. The principal points demanding our attention are the following :—

SLAUGHTER HOUSES.—Two slaughter houses have been removed outside the town limits during the present season. Frequent inspections of those still remaining have been made, and have shown that a great deal of pains is taken to keep things up to the standard. If an occasional bad odor is found, it is generally from unavoidable rather than from avoidable causes. The infrequency of complaints as to slaughter houses is in marked contrast to the state of things two or three years ago.

HOG PENS.—This year, as in other years, it has been necessary to order the removal of a good many. It often seems a hard step to those who have much kitchen refuse, but the development of scavenging has helped greatly in disposing of the latter. We may hope that before long, within the town limits during the summer, the *genus* hog will be practically extinct.

REMOVAL OF GARBAGE AND EXCRETA.—In no other division of the sanitary work of the year is so much improvement seen as in this. When the first Board of Health was inaugurated it was with difficulty that one man could be got to attend to this work. Now

twelve or fifteen are engaged in it, and as a natural result, it is pretty well done. A lot was obtained at the lower end of the town for the deposit of all kinds of refuse and has been made good use of. Indeed much harmless matter has been put there, that might as well have been used in filling up Spaulding's Bay. Clippings of glass, tin, and zinc, and ashes and such material would answer admirably for that purpose; but the difficulty is that occasionally a dead cat or rat is found in the heap, and, when exposed to putrefactive influences, tells some sensitive nostril that the town is in an alarming unhealthy condition. Hence it has been found advisable to prohibit almost all kinds of refuse from being deposited there.

Wells.—I have analysed more than seventy samples of water during the present year. As a rule there was less organic matter than heretofore, but some wells were very bad and had to be closed. I should recommend filters to be used in every house. Good and cheap ones can now be easily obtained, and are a great protection from the impurities which find their way into the best water.

Complaints.—Hundreds have been sent to me throughout the year, the great majority having reference to the throwing of slops by families at their neighbor's doors A good system of sewerage would, of course, remedy this and the necessity for such a system becomes apparent yearly. A bad state of things is found at the rear of the stores in spring from this cause. Snow accumulates, and, mixed with the slops periodically thrown out, is converted into a mass of ice several feet in thickness, which shaded from the sun, does not melt away till June or July, and makes spring cleaning impossible till then. Complaints as to offensive premises are much less frequent this year, owing, no doubt, to more efficient scavenging. All complaints have been remedied as promptly as possible. Acting-Chief Adams, being the only Inspector on duty during the day, had his hands full, still we managed to get through the work of the year pretty well.

Typhoid Fever.—When two or three well known persons are attacked with this disease, the many rumors connected therewith lead the public to suppose that hundreds of cases exist around them. The truth is that in Peterborough this year we have had very little more than our ordinary share of typhoid and much less proportional than many towns in Ontario. An intensely hot July is probably accountable for the slight increase. Three deaths have occurred from typhoid and three from typho-malarial throughout the year.

Diphtheria.—From 1st December, 1886, to 1st December, 1887, eight deaths have occurred from this disease, five of which were in last December. There have been no cases reported during the latter summer and fall, but within the last week or so a few have occurred. The greatest care is taken by means of placarding, isolation and disinfection to prevent any communication. The proportion of cases is a good deal less than in the majority of towns during the year.

Scarlet Fever.—Very few cases have occurred and only one death.

Death Rate.—In 1886 there were 149 deaths to a population of 8,428. In 1887, 144 deaths to a population of 8,663. In other words, last year the death-rate was 17.6 per thousand, while this year it is only 16.6 per thousand, the lowest on record in Peterborough. The registrar-general of England fixed upon 17 per thousand as a kind of standard to be aimed at by sanitarians. In coming below even that, we have much reason for gratification.

Milk Supply.—I have lately received circulars from the Provincial Board referring to this question. It is proposed to take comprehensive measures next year to ensure the purity of so important an article of diet. Your officers notified several of the milk-vendors that their places might soon come under inspection. I may say that no complaints have been made as to impurity of milk sold in the town.

Appended is a synopsis of sanitary work done during the last year.

J. CLARKE, M.D.,
Medical Health Officer.

Synopsis of sanitary work done in Peterborough during the year 1887 :—

Number	of yards inspected	523
"	notices served	213
"	yards in good condition	320
"	slaughter houses removed	2
"	hog pens removed	32
"	wells inspected	112
"	samples of water analysed	74
"	complaints	350
"	water closets cleaned	57
"	houses placarded	32

Picton.

Medical Health Officer's Report.

I have the honor to present my second annual report on the sanitary condition of this town for the year 1887.

Notwithstanding the efforts of Medical Health Officers, Local Boards of Health and others interested in the promotion of public health, a great deal of opposition is placed in their way by persons either wilfully negligent of or carelessly indifferent to the well-being of the community.

Sanitary work is yet in its infancy, and it is very encouraging to note the decided change for the better in public sentiment in all parts of Canada, and especially in Ontario, during the past five years.

It is not too much to say that within at least the next decade the work of executive health officers will be as explicitly defined and as thoroughly executed as that of our chief magistrates to-day.

No very fatal epidemic has visited our town during the past year; measles and whooping-cough prevailed during the latter winter and spring months, continuing in a sporadic form until now. Ten cases of typhoid fever in the town have come under my notice, directly or indirectly, during the year, all but one occurring within the last three months. Most of the cases were mild and only one death occurred, which, however, was one life lost from a preventible disease.

The late Dr. Parker, of England, once remarked, " When a man dies of typhoid fever some one ought to be hanged." The existence of this disease in a town or country suggests the advisability of looking more closely to the water supply and the condition of the back yard and its belongings. It is an indisputable fact that typhoid fever and diphtheria are pre-eminently country diseases, and destroy more lives in rural districts and country towns, compared with the population, than in large towns and cities. These results are, undoubtedly, associated with an impure water and milk supply. Ignorant prejudices are, like facts, stubborn things and hard to remove, and frequently nothing but a plague is sufficient to arouse the people to a sense of their danger.

It has been frequently proved that a well drains an extent of ground the shape of an inverted cone, and the area of the ground drained is about four times the depth of the well. This varies with the nature of the soil and the dryness of the season. In a porous soil like ours, after such an unprecedented drought as we have past experienced, it will not be surprising to find the fall rains followed by an outbreak of typhoid fever and other filth diseases through the contamination of well water by soakage from unclean surroundings. The question of water supply has not received the attention it demands in our town, althongh we are approaching a much better state of things in that direction than existed heretofore.

The Statute enacts that all wells must be cleaned out at least once a year. This law has not been observed save in individual cases, and until all privy vaults and cesspools are cleaned out, filled up, and dry earth closets adopted, the emptying of wells will be prolific of evil, for, as soon as the well is empty, soakage commences to pour in from all

sides, and if there be a cesspool or sewer in the vicinity, the well gets the benefit of its contribution.

In towns where well water is used every precaution against soil contamination by refuse and slops should be taken. Even flowing springs are not proof against this source of impurity, as was instanced in this town during the past summer. The spring, "flowing from a crevice in the rock," and, therefore, "absolutely pure," became dry, ceased to be a spring for the time being. The town sewer was dammed in order to get water to water the streets, and at once this spring began to flow as it had done for generations before.

Picton has accomplished considerable during the past year toward securing a purer water supply.

On recommendation of the Local Board of Health, the Municipal Council passed a by-law practically forbidding the use of privy vaults and cesspools, and enforcing the establishing of dry earth closets; scavengers were appointed to remove night soil, and a fair beginning to this work was made.

During the year some sixty-five vaults were cleaned out, from which over forty tons of night soil were taken. Of these sixty-five vaults only about half were filled up by the scavengers; we presume the occupants filled up the rest according to agreement. Presuming that two hundred dry earth closets were in use prior to the passing of this by-law, there remain at least three hundred vaults yet untouched.

The Sanitary Inspector, whose duty it is to make frequent house-to-house visits during the year and investigate such matters, can give me no information bearing on this point.

I now repeat what I said last year, that before thorough sanitary work will be done there must be a paid sanitary inspector, whose other duties do not conflict with a thorough execution of his work as a health officer. It is to be hoped that Picton will secure the aid of an intelligent man for this purpose, and thus save the lives of many of her citizens and more of their money by the transaction.

The death-rate for this year up to the present is $1\frac{1}{3}$, a little less than the rate last year, which was $1\frac{2}{3}$ per hundred. Printed slips, for reporting cases of contagious diseases to the Secretary of the Board of Health, were supplied to the several physicians of the town, but were not used save in my own case. Fortnightly returns were made to the Secretary of the Provincial Board of Health of all zymotic diseases during the year occurring in the town.

The marsh at the head of the bay is an excellent breeding-place for all malarial and zymotic diseases. This place could be easily drained, and a dirty and dangerous muck-hole thus converted into a healthy and fertile spot.

I hope that the good work of preventing disease may be carried on much more energetically during the coming year.

J. EARLE JENNER, M.D.
Medical Health Officer.

Port Arthur.

Medical Health Officer's Report.

As required by law, I herewith present my health report of the town of Port Arthur for the portion of the year 1887 which has elapsed.

During the whole of the year there has been remarkable freedom from all varieties of disease. No epidemic has visited the town; we have had only one isolated case of diphtheria in ten months, one of typhoid fever, and two very slight cases of scarlatina.

There have been comparatively few cases of really serious illness, and the death-rate for the year, as far as it has gone, will be found to be unusually small.

The causes leading up to such a satisfactory state of things, as compared with two or three years ago, may be enumerated as follows:

(*a*) Better house accommodation, and in particular the absence of overcrowding, which formerly caused so much of the sickness.

(*b*) The large fires of last winter, which destroyed four or five blocks of buildings right in the heart of the town and the centre of its overcrowded part. These buildings

have been replaced by much more spacious, healthy and handsome structures, with all desirable conveniences; so that even if fully occupied in future the occupants will find themselves as residents under very much improved conditions. For the time being, too, the empty spaces found by the fires gave lungs, so to speak, to the town and lessened the probabilities of disease.

(*c*) The better attention paid to the condition of the streets, drains and yards. In the early part of the spring all householders were compelled to clean their yards, cellars, etc. An examination of all streets, cellars and drains was also made by the Medical Health Officer and a report thereon submitted to the Board, on which immediate action was taken. In almost every case the nuisance was promptly abated either by the owner, or, when a matter to be attended to by the town council, by that body. By the first of warm weather there was not a known nuisance existing in the town; and where such have arisen subsequently they have been promptly attended to. In this connection it may be proper to speak of the most efficient manner in which the Municipal Health Inspector has performed his duties, and to whom nearly the whole credit of the present condition of the town is due. In my opinion Chief Nichols has performed his duty in this respect in a most thorough and capable manner.

As yet the people of the town are drinking pretty much the same quality of water which they were using last year. But a good deal of quiet work has been done by the council in the way of providing a system of waterworks; and though there may not yet be much to show as a result, it is well to hasten slowly in such matters, if the causes of delay be merely to ensure a cheap, plentiful and pure supply of drinking water, and to avoid the occurrence of costly and irremediable mistakes through the too hasty adoption of some imperfectly devised scheme.

The twin question of sewerage under the Frontage Act has already been practically and satisfactorily settled for a large and important section of the town by the construction of the Wilson, Cumberland, Park and Pearl streets sewers, which are rapidly approaching completion, and which will prove to be of incalculable benefit to the section of the town interested. Doubtless this enterprise, which is only a part of a well-considered scheme for the whole town, will be extended till all parts of the municipality are similarly benefited.

Here one practical suggestion might be made. No one could have watched the construction of those sewers this fall without being aware of the odour arising from the excavations, caused by the exposure to the air of decayed wood and vegetable matter. These excavations were begun after the cool weather set in, but had they been commenced in June or July I am satisfied that we should have had a terrific epidemic of diphtheria, typhoid fever, or other such disease along the course of these drains. Should there be any extension next year no such work should be allowed before the middle of August, unless where the soil is known to be sandy or gravelly. And any repairs to the streets which may necessitate the turning up of such soil in smaller quantities should be done quite early in spring for the same reason, and should not be left off till midsummer.

Up to the evening of November 15th, 1887, sixty-one deaths have been registered at the office of the town clerk, and I have reason to believe that all deaths occurring during the year in the town have been faithfully recorded. But of this number more than one-third represent deaths which occurred outside the town, which were recorded here only for purpose of burial. To represent fairly the health of the town we should deduct the following deaths:

Deaths occurring at Rabbit Mountain	2
" Beaver Mountain	3
" in Oliver Township	2
" at Fort William	1
" Peninsula Harbor	1
" Verte Island	1
" on Canadian Pacific Railway	11
Total	21

This leaves forty deaths as actually occurring during the time specified, and really occurring in the town, including also all deaths at the hospital. But a still further deduction may be made since two patients admitted during the year were moribund on their arrival, so that their deaths should be fairly excluded, leaving the net death-roll at thirty-eight for the ten and a half months. Should the same ratio of deaths be maintained up to the end of the year, the death-rate of the town for 1887 would be in the immediate neighborhood of twelve-and a-quarter to the thousand of population, which may be looked upon as an exceedingly low rate.

The total number of births cannot be so accurately estimated ; but it cannot fall short of one hundred for the portion of the year which has already elapsed.

During the summer of 1887 I inspected over eighty cows, the owners of which sold milk, and found them kept in a clean and healthy condition. I also examined many samples of the milk offered for sale and in only one instance did I find a sediment, showing that through carelessness in milking some dirt got mixed up with it. In all other instances the milk was up to standard quality and bore no indications of having been made acquainted with the river or the creek.

THOS. S. T. SMELLIE, M.D.,
Medical Health Officer.

ST. MARY'S.

Medical Health Officer's Report.

In submitting this my first annual report to you respecting the sanitary condition of the town, I am happy to be able to state that during the past summer our citizens have appreciated a freedom from contagious diseases that many other places cannot boast of.

In the early part of the season there were a good many cases of measles in the town and country, and although many of them were very ill it is very pleasing to note that recovery was the rule, even amongst the adults who had contracted the disease.

Since January last there were reported to the Secretary twenty-three cases of diphtheria, four of which, unfortunately, proved fatal. There has only been one of these in town since the beginning of last May ; the others were all before that time, although there were about a dozen cases just outside of the municipality during the summer with three deaths.

There were only four cases of typhoid fever, all of which recovered. Of the other contagious diseases, such as smallpox, scarlatina, cholera, etc., none made their appearance amongst us.

It is gratifying to learn from the Inspector that the people of the town are beginning to realize more fully the advantages likely to ensue from the keeping of their premises in a good and healthy condition, as he reported after his house to house inspection last spring a marked improvement over last year ; but there are a great many who seem still to know little or care less as to the sanitary condition of their own or their neighbours' premises, and it would only be when an epidemic broke in upon them that they would wake up to the responsibility of their position. However, it takes time to educate people in sanitary science as well as in other matters, even if it is for their own benefit.

There are one or two matters to which I would most respectfully to direct the attention of the Board of Health, and the first is to the condition of the sewer on Water and Queen Streets.

When the weather is very warm and a south-west wind blowing, the odor from the mouth of the sewer is almost unbearable, and why the people living in this locality should be compelled year after year to suffer in this way, I cannot understand, more particularly when it is quite possible to remedy it to a large extent if not altogether.

The sewer should be used only for the purposes for which it was intended, viz., to drain cellars and carry away the surface water of the streets, and parties using it for any-

thing else should be compelled to stop doing so. It is a very strange commentary on our consistency to ask our citizens to clean up their back yards, etc., at a certain season of the year and have the filthiest place in town on the main streets.

I would further direct the attention of the Board to the sanitary conditions of the surrounding of "The Old Lock-up School" in the south ward. In that vicinity stone was quarried out many years ago and excavations left, the depth of which is several feet below the bed of the river, and during the whole of the past summer (and I have no doubt other summers also) there have been decaying vegetable matter and perhaps animal matter too lying in them and partially covered by stagnant water. As there was a number of cases of diphtheria in that locality last autumn and winter, there is not the slightest doubt in my mind as to this state of affairs helping to make the matters worse than they would have been had the sanitary conditions been different. I may add still further, that several of these cases proved fatal, and in the light of experience I consider it would be criminal to have children attend that school and nothing done in the way of putting the surroundings in a good healthy condition.

There has been a good deal of complaint as to the condition of the privies at the Central School. The privy-pit is still used, and as long as such is the case it ought to be disinfected during the warm months of the year, which has, I understand, been done, and the excreta removed at least once a year, which has not been done for many years. I would most respectfully refer the members of the Board to Sec. 69, clause 14, Rule 3 of the Ontario Health Act, for their guidance in this important matter. The conditions of the Act ought to be strictly carried out, more especially as there were several fatal cases of diphtheria in that locality last winter.

In a town like this, where we have no water works, and may not have any for many years, the dry earth closet system ought to be introduced as rapidly as possible, and although there might be a little more trouble and expense in connection with such a system than with the present one, still we would all feel that we were more than repaid by our being in a better condition to resist contagious diseases.

Some difficulty has been experienced in obtaining a suitable place for the depositing of filth of different kinds, and the want of such a place has been made the basis of an excuse by some for not cleaning their premises at all.

The Board should see to it that arrangements are made for the necessities of the town in that direction.

JOHN SINCLAIR, M.D.,
Medical Health Officer.

Sault Ste. Marie.

Secretary's Report.

I have the honour to inform you herewith that the Medical Health Officer and the Sanitary Inspector for this town have made their annual reports for the current year, of which the following is a brief summary:—

"That the town is in a highly satisfactory condition when viewed from a sanitary standpoint.

"It is recommended that the town procure a water supply from some other and purer source. Also it was recommended that Council pass a by-law rendering compulsory the dry earth closet system instead of the present pit system, the old time usages to be disinfected and filled up, and superseded by the dry earth system; such to come into operation on and after May 1st, 1888.

"The appointment of a town scavenger is recommended, and the procuring of an isolated place, easy of access, for the dumping of garbage and night soil, so that when mixed with soil or chemical ingredients, it might be used for manure.

"The Sanitary Inspector made a house to house inspection, causing the removal of all refuse matter or whatever could be detrimental to the sanitary condition of the town.

"In conclusion, I will say we have been free this year from any epidemic or infectious disease dangerous to the public health."

CHAS. P. BROWN,
Secretary Board of Health.

STRATHROY.

Medical Health Officer's Report.

In compliance with the regulations of the Health Act, I now beg leave to submit to you my report for the current year. It affords me much pleasure to be able to state that the sanitary condition of the town for the past year has been remarkably good. While some of the cities and towns of the province have been visited with epidemics of typhoid fever, diphtheria, etc., we have been comparatively free so far from these diseases. During the year some few cases have occurred, but none of a malignant type have been reported. There have also been some scattering cases of measles and scarlet fever, generally recovering.

Our sanitary inspector made his visits as usual from house to house in the early part of the season to see that all refuse and garbage were removed from yards, privies, etc., to places selected for further disposal, where they would not be considered a nuisance. No complaints were thus far made, so that the place selected by your Board was this season a success. The refuse from the tannery and woollen factory caused some annoyance, especially to those living in the immediate vicinity. It will be well for the Board to ascertain in what way this grievance may be best overcome during the ensuing year.

I have to-day received a communication from the secretary of the Provincial Board of Health, stating that in order to prevent the spread of infectious diseases by the use of impure milk, all dairymen and milk vendors will require to register with the secretary of the Board of Health at least once a year, giving at the same time the sources of their milk supply, the number of cows kept, the food and water with which they are supplied, and also will be required to give notice of any cases of contagious diseases of animals affecting any of those he has in charge; and that the milk supplied be of a proper standard quality.

A great improvement has taken place by the introduction, through our sanitary inspector, of dry earth closets in connection with the Public Schools.

The members of the Board of Health have, as in the past, discharged their duties faithfully and well, and deserve great credit for their untiring energy in the discharge of the work imposed on them by the regulations of the Health Act.

G. HENDERSON, M.D.,
Medical Health Officer.

TRENTON.

Medical Health Officer's Report.

I have the honour to lay before you my fourth annual report. In the two last the occurrence of smallpox with its attendant commercial disturbance, expense and danger had to be chronicled, but happily the scourge has not visited us this year. We have had, however, a very severe epidemic of measles extending over three months, from March to June, with a heavy mortality among children, especially in the ill-drained portions of the town, followed in July and August by an equally heavy mortality from cholera infantum, also most severe in the same unfavourable situations, and among infants nourished on artificial food. No notice was received of the outbreak of measles till several cases in different families were reported from school. An attempt was then

made to isolate the cases, and attendance of children from infected families was prohibited. Soon, however, the teachers and their families were attacked, and the disease became so general that the schools were continued and all who were well enough allowed to attend. To a failure to report the first case is no doubt chargeable the evil of its general prevalence. Last year the first case—imported from a neighbouring town—occurred in my own practice, and early prompt measures cut short the outbreak with scarcely any loss of life. In one of the families, where all who were attacked died, the pernicious habit of throwing the kitchen slops at the front door, where under the heat of the sun it emitted a disagreeable odor laden with disease germs, assisted, if it did not cause, the fatal issue.

In the district known as the French village the few inches of soil which covers the flat rock are actually not above the high water of the river, and the drains—where any exist—only empty slowly as the river falls in hot weather. The mouths are not large nor kept sufficiently cleaned, and a few inches of water remain supporting rank vegetation which, during the season of drouth, dies and exhales a disagreeable and dangerous miasma. The only remedy that suggests itself is to fill up the locality with absorbent earth or gravel, and keep the outlets of the drains free and deep. A little expenditure in this direction would improve the value of property and save many lives. The dry earth closet should be made compulsory and drinking well water prohibited. The dry earth system is very slow in being introduced notwithstanding its urgent necessity. There is a case of a number of stores with tenements in the upper flats on Ridgway and Murphy streets, where all the available space is occupied by the building, and only enough room for a small privy near one of the front doors left. The dry earth system was made compulsory by the Board but was practically avoided, though the landlord made every effort to assist the Health Inspector. The kitchen slops and housemaid's pails are continually emptied on the street, to the great annoyance and danger of the neighbourhood. The Board of Health recommended the street committee to construct a drain from the premises to the bay, but so far the matter has not received their attention. Notwithstanding these facts a more general cleaning up of vaults and yards has been made than heretofore, and a more progressive spirit animates the people, and the efforts of the Board are bearing fruit. The mere fact that the evils are known and pointed out by the Health Inspector has its effect in arousing the populace to a sense of duty. In many places on both sides of the river, on the "flats" filling in will have to be practiced, but a deepening of the drains to low water level will have to be undertaken in order to get entirely rid of surface-water. Along the course of the little streams leading from the mountain each householder constructs a dam, penning the water so that a pail may be dipped up, and retarding the free flow. This should not be tolerated. The same purpose would be served by each making an excavation lower than the bottom of the drain. The barrels which supply the streets had once lids to protect them from dust and other impurities. These have disappeared, parties using the water being too careless in handling or replacing them, so that dogs and other animals have access to them, and dirty pails from stables and outhouses are freely used in drawing the water, thus endangering its purity. From the report of Health Inspector Hinde, which I enclose herewith, it will be seen that a thorough inspection of yards, etc., has been made; also food and provisions offered for sale at the market were duly watched, and three cases brought before the police magistrate and fined for offering bad meat and butter for sale, also one for offering diseased potatoes. Fifty pigs were found within the limits of the corporation—all but three persons complied with the regulation, distance, etc.

Sixty unclean privies were abated and one hundred filthy yards cleaned to the Inspector's satisfaction. The inefficient draining is much complained of, as well as the habit of throwing the slops at the back door—the winter's accumulation melted under a hot sun presents a disgusting spectacle. He reports that on the whole, while he has been more exacting, the people have, when notified, been quite willing to comply with the law.

CHARLES McLELLAN,
Medical Health Officer.

WHITBY.

Medical Health Officer's Report.

As Medical Health Officer of the Town of Whitby for the year 1887, I have the honour to report as follows :—

In compliance with a resolution passed by the Board a house to house inspection was made by the Sanitary Inspector, and where a nuisance, or anything likely to create a nuisance, was found to exist the Inspector gave orders to have the same abated or removed forthwith. In most cases the orders were fairly responded to. If not responded to in a given time the Inspector reported to the Secretary, when a notice was immediately served on the persons failing to comply with the orders.

This had the desired effect—stables and yards were cleaned, water closets emptied and disinfected, and other nuisances, such as manure heaps, decaying vegetable matter, kitchen refuse and dead animals removed.

There have been a few cases of scarlet fever, which appear to have been of a comparatively mild type, only one case having been reported to the Secretary, which did not prove fatal.

Diphtheria was prevalent during the summer and fall, and was traceable to certain localities where the drainage was imperfect or sanitary measures not properly carried out.

Ten deaths from diphtheria have thus far been reported.

Complaint having been made by the Rev. Mr. Hare, Principal of the Ontario Ladies' College, of an open drain passing near that institution, the Board of Health submitted the matter to the Town Council.

The Town Council has ordered the construction of a tile drain from the north to a point south of the college, which, when completed, will improve the condition of things in that locality, and will form a portion of a sytem of drainage for that part of the town, which is much needed.

The precautions taken by the Board for checking the spread of contagious diseases were set forth in a letter adopted by the Board at a meeting held on the 31st October last, a copy of which the secretary was instructed to forward to you.

I have further to report that since the meeting of the Board of the 31st October, two hundred copies of pamphlet No. 15 have been procured for distribution.

I cannot close this report without recommending that measures should be taken for doing away with privy vaults and substituting dry earth closets instead.

D. P. BOGART, M.D.,
Medical Health Officer.

WINDSOR.

Medical Health Officer's Report.

The season has again arrived when I am required by the health by-law to report on the sanitary condition of the town, and the work performed during the year.

The people of Windsor have again much to be thankful for, at the small number of zymotic or germ diseases that have occurred during the year.

An epidemic of measles swept over the town in the early part of the year, but it was of a very mild type. Typhoid and typho-malarial fever are not reported to the board, but the town clerk and statistical officer has had only three deaths from these diseases reported during the year.

Windsor being supplied exclusively with river water has escaped, while other towns and cities all over the Dominion have suffered severely owing to the dryness of the season causing low water in the wells. These facts seem to strengthen the theory that seven-

tenths of typhoid disease is caused by bad water. As the drainage of the town progresses, what are known as malarial diseases have greatly decreased.

The usual annual cleaning up of the town was begun on the 5th day of May and finished on the 31st day of that month, at a cost of $124.65.

Copperas and sulphur are still supplied from the town hall at cost price, but purchasers were notably fewer this year than last.

Along with the large number of new buildings erected this year, there has been a noticeable improvement of old ones in the way of raising houses higher off the ground and of filling up under others, doing away with much dampness. A great deal remains to be done in this direction.

During the coming year I intend calling public attention to some points in connection with the water supply, which may involve a considerable expenditure of money. The steady growth of Walkerville and the very complete system of sewerage being adopted there, emptying as it does a large amount of filth into the river above our water intake, would seem to warrant some action on our part to guard against danger which may become serious.

I congratulate the present council on having added a liberal quota to the sewers this year, and for having extended the water mains to parts of the town where the inhabitants have suffered greatly for want of good water. I would strongly urge that parties be compelled to make connection with sewers; and no one should be allowed to empty slops and other offensive liquids from their premises into the public highways, as the council has ample powers to prevent it.

Simultaneously with this I would recommend the abolition of all privy vaults, and where connections cannot be made with sewers, the adoption of the tub system. It is healthier, cleaner and cheaper than the present one, and when people once get accustomed to it, it will be found much more convenient.

I would suggest to the incoming council the propriety of constructing sewers on McDougall Street, and on Dougall, Janet and Caron Avenues. There is a swamp on Dougall Avenue near Elliott Street, extending east and west. I have repeatedly called attention to it, but so far no steps have been taken to drain it. It cannot be reached at present by a sewer, but the council has ample power to compel owners of land to open up and keep open the water-courses.

The crowded condition of the public schools calls loudly for further school accommodation. The condition of the high school particularly demands the immediate construction of a new one or removal to interim premises, as teachers and pupils are suffering from the unsanitary condition of the building. In the erection of the new one, I sincerely trust that due regard will be had not only to location, but also to construction, including air space, admission of light, school desks, gymnastics, ventilation, heating and sewerage.

In conclusion, let me thank the council for the appointment of an engineer to devise means to abate the sewer gas nuisance, and the systematic cleaning up of the premises situated on what is facetiously known as "Consumption Alley."

JNO. COVENTRY, M.D.,
Medical Health Officer.

WOODSTOCK.

Medical Health Officer's Report.

I congratulate you on your very efficient Board of Health, also on your selection of Mr. Baldwin as Health Inspector, Mr. Hall, chairman, and the other members of the Board, having given the Inspector and your Medical Health Officer a great deal of assistance.

I believe more real sanitary work has been done during the present year than in all former years since a Board of Health was established.

The Inspector has made a house-to-house inspection, examining the out houses, wells, etc., connected therewith, and where anything appeared detrimental to the public health he has judiciously ordered its removal, and I am glad to inform you that, with two or three exceptions, the citizens have supported him. I cannot congratulate you on the exceptionally healthy condition of the town during the year, there having been a number of cases of typhoid and malarial fevers, diphtheria, and at present an epidemic of measles. Yet I am pleased to inform you that the death-rate has been low compared with other towns of like size, as shown by the mortuary returns.

In all cases of sickness or death reported to me, I made a careful investigation as to the causes, and am fully persuaded that bad water, sewer gas and marshy effluvia were the chief factors in the three first mentioned diseases.

It is needless for me to remind you of the injurious effects of bad water and sewer gas. The water supply of Woodstock was supposed to be of the first quality. I am sorry to inform you, however, that a very large proportion of our wells, especially in the thickly populated parts of the town, during the present year have been bad. I have examined upwards of 100 wells and fully 75 per cent. were bad, many of them quite unfit for use. I have no doubt if the wells outside the thickly populated parts were properly cleaned once or twice a year and properly protected, a fairly good supply of water could be obtained. But in the more thickly populated parts it will be impossible to obtain good water, as the soil has already, for want of proper sanitary precautions, become so impregnated with poisonous material as to render water percolating through such soil unfit for use.

With regard to sewer gas, so long as the sewer is used for receiving night soil, etc., more especially as it is seldom flushed, you may expect disease and death resulting therefrom.

I would recommend the frequent flushing of the sewer.

I made two inspections of milk sold in town, one in March and the other to-day, and found the milk good. To-day's milk was very good, none containing less than 4¼ per cent. fat.

Last June I visited the public schools and premises, made suggestions as to greater ventilation, also as to the use of the dry earth system, which suggestions, I am glad to inform you, the School Board adopted at once.

I again congratulate you on passing a by-law for the adoption of the dry earth system, covering most parts of the town. The Inspector informs me that 68 pits have been emptied and filled up and the dry earth closet used instead. I feel assured that before one year the old privy pits will be a thing of the past in our town.

In conclusion, I would remind you that the work of the Board and your health officers is no light and pleasant task, and it would be in the interest of the town to grant greater remuneration for the work done. Especially would I recommend that Mr. Baldwin get a greater salary, as $100 is not half pay for the work performed.

ARCHIBALD McLAY, M.D.,
Medical Health Officer.

VILLAGES.

Alliston.

Medical Health Officer's Report.

I have the honour to report a good condition of health throughout the municipality. No epidemic of a contagious or infectious character has existed to my knowledge since my appointment, with the exception of measles, and they were of a mild type with no deaths. Nor have any complaints been made to me regarding sanitary matters by the other medical men of this municipality. Doubtless there are many things which require the attention of the Sanitary Inspector in the municipality, but owing to want of information among the people they have not been brought under my notice.

I can, therefore, only report an excellent condition of general good health in the municipality.

T. M. ARMSTRONG, M.D.,
Medical Health Officer.

Arkona.

Medical Health Officer's Report.

Early last spring an inspection of all premises in the village was made by the Sanitary Inspector, and wherever anything unsanitary existed it was removed.

There have been no epidemic nor contagious diseases during the past year.

The village is now in a good sanitary condition.

W. J. TEASDALL, M.D.,
Medical Health Officer.

Bath.

Medical Health Officer's Report.

I have the honour to report that the health of the municipality has been exceptionally favourable this year. We have been visited neither with diphtheria, typhoid fever, nor other serious contagious disease.

It is to be hoped that this has, in a measure, been due to the precautionary measures which have been carried out.

The usual steps were taken in the early part of the year to place the premises of the residents of the village in a proper sanitary condition. Drainage was duly inquired into and made efficient. The slaughter houses were changed from their original sites to remote and isolated quarters, and the owners required to make a proper disposition of the offal. Your Board are to be congratulated on the favourable results of their efforts this season, and may feel encouraged to proceed in their work for the future with watchful diligence in the lines which have guided them in the past year.

R. KENNEDY, M.D.,
Medical Health Officer.

Belle River.

Medical Health Officer's Report.

As Medical Health Officer of the village of Belle River, I am pleased to report that during the year the sanitary conditions of the village have been good.

It is a matter of thankfulness that during the past year our village has not been visited by any diphtheria or any other widespread cause of mortality beyond the ordinary causes that are at work from year to year, over which we have no control. There was one case of typhoid fever which was fatal, but it had nothing to do with the sanitary condition of the village as the man was ill when he came here.

U. GABOURY, M.D.,
Medical Health Officer.

Blythe.

Medical Health Officer's Report.

I have the honour to report, in conformity with the provisions of the Health Act of 1884, that the general health of our village has been fairly good during the past year, and that with one exception (which was immediately abated upon proper action being taken) no nuisances have been complained of. We have had no serious epidemics of disease requiring public interference, and that no difficulties have arisen in carrying out the provisions of the Acts relating to public health. The epidemic of dysentery which visited us in the summer was of a mild character, and the same may be said of the present attack of measles. There have been a few cases of typhoid and diphtheria of a sporadic character and not spreading beyond the premises where they originated. Scarlatina was imported, but by prompt isolation and disinfection it was confined to one family.

W. SLOAN, M.D.,
Health Officer, Blyth.

Bolton.

Secretary's Report.

I beg leave to submit for your consideration the annual report as required by the Public Health Act, 1884.

Early in April of the present year I notified the butchers in the village relating to the required sanitary conditions of their slaughter-houses and premises connected therewith, under the rules adopted by your Board for their guidance.

On the 16th day of May I made my first visit to see if these rules had been complied with, and found, with the exception of one of said butchers, that their slaughter-houses and premises were clean and no offensive odour arising therefrom. In this exceptional case I ordered an immediate removal of the cause of offence. June 1st I made a second visit. In this exceptional case I found that my instructions had not been fully complied with, but I am pleased to report that since then all said houses and premises have been kept reasonably clean.

During the months of May and June I made a general inspection of the village and requested that anything offensive or unsanitary be removed and, where necessary, disinfectants used.

Manure heaps accumulated during the winter months; pig styes, dead animals were ordered to be removed.

On those premises where only a partial removal had been made, the parties connected therewith were warned that if the immediate removal of all such offensive matter was not attended to at once, they would be fined. The parties so offending complied with my instructions forthwith.

I am pleased to report that only one case of an infectious disease was reported to me—diphtheria. In this case the patient was so isolated and kept so that no similar case occurred in the municipality.

SAMUEL A. WALFORD,
Secretary and Sanitary Inspector.

BOTHWELL.

Secretary's Report.

Everything has progressed favorably with the Local Board here. Have had but two cases of typhoid fever in a remote part of the town, and no deaths. No cases of diphtheria at all, but a few mild cases of diphtheritic croup, with one death.

WM. M'ALPINE,
Secretary.

BRACEBRIDGE.

Chairman's Report.

I have to report that there were twenty-five cases of diphtheria reported to this Board during the year, of which seven cases proved fatal.

In addition to these there were undoubtedly other cases of the same disease in families subsequent to the first case reported, which were not reported to this Board.

Typhoid fever was in one family in the village during the month of June last; all cases happily recovered.

During the past year the Board has been unusually vigilant in looking after the health of the inhabitants of the village. A larger amount has been expended by the municipality in draining low lots, in addition to the draining of cellars by the owners of property in the village, than has been heretofore expended in any year since the Public Health Act came into force.

The health of the inhabitants of the village being a primary consideration, I would suggest to the council of 1888 the necessity of appointing a Board who will in this department look after the interests of the village, and trust that the year upon which we have entered may, not only as regards the public health but in all other respects, be a prosperous and happy new year to the municipality.

WILLIAM KIRK,
Chairman.

BRUSSELS.

Medical Health Officer's Report.

The Board of Health during the present year held occasional meetings at the call of the Secretary. Your Sanitary Inspector made a careful inspection in the early spring, and his requests were, as a rule, cheerfully attended to.

The chief complaint during summer arose from pollution of wells, decaying manure and piggeries. As these complaints were mostly verified by inspection of some member

of the Board, it was ordered that the Health Act be enforced. The only miasmatic and contagious diseases reported to the Board were typhoid fever and measles; the latter prevailed very extensively in the surrounding municipalities, but the disease being of a mild type it was not deemed desirable to attempt isolation of the cases. No death from this disease was reported. Only a few typhoid fever cases were reported and no death.

The general health of Brussels is and has been good, notwithstanding the unusually hot dry summer and scarcity of water especially in the southern part of the village.

T. G. HOLMES, M.D.,
Medical Health Officer.

CHESLEY.

Secretary's Report.

In accordance with Section 24, Public Health Act of 1884, I beg leave to report as follows: A full Board was appointed in January last; a Sanitary Inspector was appointed, also a Medical Health Officer. The Board on the 5th instant (being the only meeting since January 31st last, as per statute) reported "no contagious diseases;" the Sanitary Inspector gave same deliverance. The Medical Health Officer attributed in his report our freedom from contagious scourges to pure water and good drainage.

JOSEPH K. CLARKE,
Secretary.

DRESDEN.

Chairman's Report.

It is gratifying to me as Chairman of the Local Board of Health for the current year to be able to report so favourably on the sanitary condition of your town.

We have had but four cases of contagious diseases during the year to this date.

I think I may reasonably conclude that the efficiency of our Inspector, and the willingness of the inhabitants generally to attend to sanitary matters when desired, have in great part been the cause of our surprising freedom from contagious diseases, when some of our neighbouring municipalities are reported to have been severely visited.

We have no Medical Health Officer, consequently cannot lay before you his report.

R. P WRIGHT,
Chairman.

DUNNVILLE.

Secretary's Report.

Owing to the apathy of our council in not passing a by-law to do away with privy vaults and cesspools, a very large proportion of the wells are more or less polluted from that scource, and if the theory advanced by some sanitarians be correct, that a well drains a surface of about four times its depth, there are very few clean wells in this locality. After a careful test of a number of wells, we found nearly all to be surface water, with quite a quantity of foul vegetable matter. Although we did not order any filled up, yet we were strongly inclined to do so; but our medical adviser not feeling disposed to assist, we, as laymen, did not feel like forcing the full limit of the law, more especially as at our request we found the persons interested willing to boil the water for drinking purposes, and willing to clean the wells and carry out the wishes of the board when requested to

do so. Diphtheria entered our village from the Townships of Moulton and Sherbrooke. In the former township more especially this disease was very prevalent; I am informed there were at one time sixty cases, and in some instances three and four out of one house fell as a warning. The disease got a great hold before the Township Boards awoke to the necessity of taking strong measures to eradicate it. Our board had in contemplation the advisability of a quarantine, and ordered me to proceed to the Secretary of the Moulton Board and inform him of the opinion of the Dunnville Board; but I am glad to say they went immediately to work with fumigating and disinfecting, and the change was wonderful. In a very few days the disease began to disappear and was finally conquered. This instance alone should convince people that diphtheria can be confined and largely prevented. Although it raged in those townships and daily intercourse with the infected were kept up, yet our village had but two deaths. I give you a table shewing the number and dates the disease was reported:

May	26th.....	3	cases in one house, one died same day.	
May	26th.....	3	" "	all recovered; those were 1 mile apart.
August	19th.....	1	" "	"
September	2nd.....	1	" "	"
"	16th.....	1	" "	"
"	27th.....	4	cases in one house, in charge of a medical man who did not believe in any precautionary measures.	
October	19th.....	1	case; died October 23rd.	
"	26th.....	1	" Recovered.	
"	27th.....	1	" "	
November	2nd.....	3	" "	
"	12th.....	1	" "	
"	14th	2	" since which date none reported.	

Total 22 cases and 2 deaths.

The total deaths in this municipality from all causes were 34, divided as follows:—paralysis, 1; consumption, 12; convulsion, 1; general debility, 1; inflammation, 5; typhoid pneumonia, 1; drowned, 1; brain fever, 1; diphtheria, 2; poison, 1; cancer, 1; liver complaint, 1; heart disease, 1; old age, 1; dropsy, 2; diarrhœa, 1; infant cholera, 1; gravel, 1; total 34.

On April 5th the board made the first round of a house to house inspection, in each case keeping a record of the condition of all premises requiring attention, and at once notified the occupants to remove the objectionable matter. We also put up posters throughout the village calling attention to the Public Health Act, and quoting the by-law in that behalf demanding that all premises be put in a sanitary condition not later than May 15th.

On our first round April 5th, we found 19 privy vaults, 60 back yards, 39 manure heaps, 8 hog pens and 1 well requiring attention. Our inspection resulted in the removal and cleaning of 74 back yards, 42 privies, 50 stable manure heaps, 14 hog pens, 2 foul cellars and 1 well. We also on October 26th, 27th and 28th fumigated and disinfected the high and public school buildings. I am happy to state our village is now in a fair sanitary condition and free from contagious disease.

J. W. HOLMES,
Secretary.

EMBRO.

Medical Health Officer's Report.

The village was visited during 1887 with epidemics of whooping-cough, scarlatina, dyphtheria and measles. The first was conveyed into the municipality and spread over its entire area before its presence was known to the health authorities or its nature known

to the parents of the children attacked, consequently no attempt was made at isolation. Scarlatina was conveyed into the village by three distinct contagions—two of a virulent type. By a rigid system of isolation its progress was arrested on each occasion, but not before two fatal cases occurred.

There were two cases of diphtheria and one of measles, none fatal. All the above were traceable to direct contagion.

The Board has adopted strict sanitary regulations, ordered the clearing of back yards and lanes, the cleaning of wells and disinfection of privies, and has a very efficient sanitary inspector. The "Dry-Earth System" of disinfection has been found so effective—so superior to the chemical modes formerly employed that, from being optional, it is to be made compulsory during 1888.

The only really unsanitary object in the whole municipality is a slaughter house fronting the principal street on the west side, and which has been an "eyesore" to the "nostrils" of everybody during the past summer, as well as a source of serious danger had infectious disease appeared. Though the owner was fined for maintaining a nuisance, still the slaughter house has not yet been removed and may yet cause trouble.

J. ROSS, M.D.,
Medical Health Officer.

EXETER.

Chairman's Report.

The Board of Health for the Village of Exeter for the year 1887, beg to report to your department as follows :—

The Board organized in January. The medical health officer reports the health of the people and sanitary condition of village to be fairly good.

During the year there was reported the following cases of disease : Typhoid fever, five cases, two deaths ; measles, five cases, all recovered.

J. A. ROLLINS,
Chairman.

FERGUS.

Medical Health Officer's Report

I have the honour of submitting my third annual report as medical health officer. It affords me pleasure to be able to say that the health of the village has been, as usual, very good. We have been free from diphtheria, scarlet fever and all particularly contagious or infectious diseases, due to a want of sanitary precautions in many cases. True, we have had several cases of typhoid fever, three of which proved fatal; but the cases have been scattered and not traceable to any cause requiring attention from the Board of Health. There has been more or less typhoid all over the Province due, in all probability, to the hot dry summer and fall and a consequent scarcity of pure drinking water.

Complaints to the Board during the season have been very few and of a minor nature, and these have been attended to. The bed of the creek running from the brewery again became clogged up and gave rise to a disagreable and unhealthy smell, which was removed as soon as the creek was cleared. It is, however, my duty to report to you, as I did before, that the refuse from the brewery should be destroyed or carried off in a separate pipe, and not allowed to discharge into and accumulate in the creek bed at the risk of causing disease in the municipality.

In addition, I would advise that the question of prohibiting the digging of holes in the ground for privy, water closet or cesspool purposes, as at present very generally practised, should be seriously considered and acted upon, as it is almost impossible to have

pure good water from a well in close proximity to such mentioned places, as they too often are especially in the centre of the village. There is often, we fear, a connection between the sickness with which we are afflicted and the close relation of water wells to the old fashioned and unsanitary human necessities and conveniences, which cannot definitely be traced and yet exists. The more scientific and sanitary methods in use in many cities would prevent this cause of disease. In conclusion, the history of another year confirms the fact that we have one of the healthiest municipalities in the Dominion.

W. H. JOHNSON,
Medical Health Officer.

HARRISTON.

Secretary's Report.

In the early part of summer the Sanitary Inspector made a thorough inspection and had every manner of nuisance promptly removed and abated. He gave active attention to these matters, and everything pertaining to a breach of sanitary requirements were abated without delay. According to a brief report of Dr. S. M. Henry (the only resident physician who gave any information to the Board) there have been a large number of cases of typhoid fever, he having had not less than thirty cases; a very large portion were of mild type and short duration; there were two deaths from this cause. Twenty-one has been the average death-rate for the three years preceding this, against eighteen for the present year; only a very small portion of these being attributable to infectious or contagious diseases. Dr. Henry attributes the cause of prevalence of typhoid, first, to the dry summer, causing great shrinkage of water in wells, which may have become contaminated from water closets in some cases, and second to decayed vegetable and animal matter, and recommends to the Board the adoption of the dry earth system of water closets for this town.

The Sanitary Inspector reports having carefully made inspection of hotel and other public places, and where any lack of cleanliness was found they were in all cases promptly abated.

The Board have made preparations for having the provisions of the statutes enforced, especially in the denser portions of population of the town, in regard to water closets, wells, cisterns etc., and inhabitants will be served with notices accordingly.

M. P. EMPEY,
Secretary.

HUNTSVILLE.

Secretary's Report.

I beg to submit the report of the Board of Health for 1887.

The health regulations have on the whole been very satisfactorily carried out. The Board, in the extremely hot weather of July, considered the wiser plan of dealing with any conditions likely to be detrimental to health would be to send their Inspector periodically through the village and have all such places thoroughly disinfected with chloride of lime. This has worked so well that—except two very mild cases, one of diphtheria and of typhoid, both completely isolated—Huntsville has been quite free from any infectious or contagious disease.

The Board's action last year in dealing with the slaughter house question has resulted in the removal of all slaughter houses beyond the corporation limits.

With a death rate far below the average, Huntsville is to be congratulated on her sanitary condition, and I have no doubt we shall have continued healthiness if we only give our prompt attention to the health laws.

R. W. GODOLPHIN,
Secretary.

LANARK.

Chairman's Report.

I beg leave to report that the Sanitary Inspector visited the premises of all householders and others in this village in the month of May, and where necessary gave directions for the cleansing of privy vaults, etc., and such directions were complied with generally without delay by those whose duty it was to cleanse the same.

There has not been any deaths during the present year from contagious diseases, nor has there been a case of either small-pox, diphtheria, scarlet fever, typhoid fever or measles during the year, a fact which speaks well for the sanitary condition of the village.

JOHN MACLEAN,
Chairman Board of Health.

LONDON WEST.

Chairman's Report.

I have the honor to lay before you my annual report for the year 1887. A great deal of labour has devolved on the members of the Board, especially those in the southern portion of the village.

Early in the spring a thorough system of house to house inspection was made and all premises ordered cleaned and put in a good sanitary condition. Later in the season advertisements were inserted in the papers calling public attention to the existence of any known nuisances and to notify the Board of such, but your chairman received no complaints.

Near the end of August an epidemic of diphtheria broke out in the southern part of the village, contiguous to the River Thames, and our Board took very active measures to prevent the spread of the disease, every case being isolated as far as possible and a thorough system of disinfection adopted. The same disinfectants and the system of house to house disinfecting was used as that recommended by the "New York State Board of Health." By this means the disease was kept from spreading, and finally eradicated entirely.

At the commencement of the epidemic this Board recommended that the school in the southern part of the village be closed, and the school trustees closed the school accordingly, and it was kept closed some two months, until all danger of spreading the disease by that source was past.

It is a significant fact that the disease first broke out right on the river bank where the sewage from the city of London is largely deposited and was doubtless the main cause of the disease, as all the cases excepting one occurred within a few hundred feet of the river. The total number of deaths reported from the disease is four.

I also find that a number of residents had to move away from their dwellings near the river entirely on account of the bad smell arising therefrom and the danger of contracting disease.

I cannot close this report without referring to the following extraordinary words found in the concluding part of the report of the City of London Medical Health Officer:—

"The insanitary condition of London West calls for the serious consideration of the citizens of London. That suburb is in a very unsatisfactory state and a source of danger to the city."

Just so! for the unsanitary condition of London West, if such condition exists, is due to the city itself. The very fact that the sewage of the whole city is deposited at our doors calls loudly for "serious consideration." When we take into consideration the enormous amount of sewage and refuse deposited in the river, not only from the 26,500 citizens, but the asylum sewage, the hospital sewage and its disease germs, the railway stations with their thousands of travellers, the large and small factories with their hundreds of workmen from the suburbs, all the hotels with their thousands of farmers and visitors, refuse from factories, etc., being emptied into the river where it is not allowed to flow freely away, but is held back by the city water-works dam, which, by its ebb and flow, causes a large portion of this sewage and human excreta to be deposited on the banks and shallows of the river, all along the banks near thickly populated parts of the village, throwing off sickening fumes and deadly disease germs, while in the spring we find the state of affairs much worse. During the winter much of this sewage and excreta is frozen in the ice, and when a thaw comes, or a freshet, this is prevented from passing away on account of the dam obstructing the stream; hence the river overflows the village, fills our wells and cellars with sewage and saturates the soil with filth and disease germs, and I am of opinion that so long as this state of affairs exist in our midst "no intelligent system of sanitation" would prevail against such a monstrous nuisance.

As you are aware, this Board has been trying to get this nuisance abated through the courts and that judgment has been given us against the city of London, but owing to negotiations that were entered into with the city the passing of sentence was suspended; and again, when the time came for it, owing to changes in the court and an application for appeal allowed, sentence has been delayed for a time, but that we shall ultimately succeed I have not the slightest reason to doubt.

In reference to our Medical Health Officers I need scarcely add a word, as you are aware there is no salary attached to the office; and as we have no resident physician in the village we have to go to the city for one, and it is not at all likely they will leave their own business to attend to ours for nothing but the love of the honour of being an official, with considerable abuse thrown in free.

JOHN CHAPMAN,
Chairman.

MADOC.

Secretary's Report.

There have been a few cases of malaria but no contagious or infectious diseases.

This state is attributable to the care that has been taken in cleanliness and draining.

The drainage of the mill pond and doing away of the mill dam, and other drainage along the west part of the village, and the thorough drainage on the east will, it is believed, remove anything that might be detrimental to the sanitary state of the village.

CHARLES GREAM,
Secretary.

MARKHAM.

Medical Health Officer's Report.

It is a matter for thankfulness and congratulation that during the past year the village has not been visited by any serious or widespread cause of mortality or sickness beyond the ordinary isolated cases which occur from year to year, and which, in my humble opinion, should be materially lessened. The sense of security has led to the inevitable and most direful result; that the health authorities, I regret to say, have become completely demoralized, so that all sanitary precautions have been neglected, so

that when that dreaded disease, diphtheria, made its appearance in one or two isolated cases in October it received but little attention, although all cases, or nearly all, that were reported to me were at once placarded, the only exception being where death had occurred before being reported, and disinfection made as thoroughly as the means at my disposal would permit. Yet in some cases (not reported) the children from infected houses were allowed to attend the public school, with the result that the disease is fast becoming alarming, and if active measures are not taken at once there is every danger of the disease becoming epidemic. There being reason to believe that there are several cases at present not reported, I have taken the responsibility of having the interested parties notified that the provisions of the Act would be at once enforced, and I trust to your co-operation to bear me out in this matter. Prompt and energetic action to prevent contagion will be required and I trust the result of stamping it out at once, as yet there being only three or four families affected. An important matter and one which should not be overlooked, and which I have for some years endeavord to mitigate, is the proper removal of excreta. As you are aware, the old style privy-pit is almost universal in the municipality, and nothing is a greater hindrance to sanitary perfection than this, particularly as in many instances they are dangerously near wells of drinking water and little or no attempt is made to keep them clean, or a larger and deeper pit is dug in the rear and contents raked into it, thus rendering the contamination of wells more certain; and I would urge upon you the necessity of securing such by-laws or enforcing existing ones in regard to distances and removal, or make dry earth closets compulsory. In the more densely populated portions of the village neglect in this matter is, to my mind, criminal. Another matter which has hitherto been general is the removal of garbage, which, in too many instances, is simply deposited in the kitchen yard and there allowed to decompose and pollute the atmosphere, and thus become a fruitful source of disease, and I would call your attention to the existing necessity for the adoption of some system for its proper removal.

W. ROBINSON,
Medical Health Officer.

MERRICKVILLE.

Medical Health Officer's Report.

At the close of the year 1887, as Medical Health Officer of this municipality and in accordance with instructions from the head office at Toronto, I have the honour to report that with the exception of an epidemic of measles during the months of April and May, this municipality has been free from contagious disease during the year. The remarkable contagiousness of this disease was singularly exemplified during the time the epidemic raged. Its origin was clearly traced to an imported case, and conveyed to others before its presence was known to your Board or recognized by the Health Officer. The simultaneous appearance of several cases led to the usual precaution being adopted, namely, isolation; but notwithstanding all efforts in that direction, it spread with such rapidity that the public school had to be closed for a season. The history of this epidemic of measles clearly establishes in my mind the fact that nothing but rigid and prompt quarantine of the first case recognized will prevent the spread of this disease where much inflammable (ripe to catch) material abound. Happily this epidemic ran its course without fatality, though in some cases leaving disagreeable consequences in young persons predisposed to lung trouble. This municipality has been remarkably free of other contagious and infectious diseases. While other sections of the country have been afflicted with typhoid and malarial fevers and diphtheria, we have been exempt except in a few cases of malarial fever. Of the latter we have within and around us abundant sources of trouble, and we must expect periodical visitations of these diseases of malarial origin as long as the bed of the river is filled with trunks of trees and stumps and other decaying vegetable matter left exposed every winter when the waters of the Rideau River

have been drawn off. It occurs to me that with a little trouble and trifling expense on the part of the corporation this evil might be reduced to a minimum, and in the end would well repay them. I would direct the attention of the Board of Health to the condition of the bay below the village and the foul stench emanating therefrom, as an illustration of this evil in its worst form. I have the honour to be your Medical Health Officer.

M. K. CHURCH, M.D., C.M.,
Medical Health Officer.

NIAGARA FALLS.

Medical Health Officer's Report.

My report of the sanitary condition of this municipality for the past year is very favourable. We have not been visited by any epidemic, and have been remarkably exempt from zymotic diseases. Notwithstanding the intensely hot summer there occurred very few cases of cholera morbus or of cholera infantum. Of diphtheria a few cases of a mild type occurred, and a few cases of typhoid fever also.

There has been but one case of scarlatina.

JAMES M'GARRY, M.D.,
Medical Health Officer.

PAISLEY.

Chairman's Report.

The Board met on the second day of June and took the necessary steps in order to put the village in a proper sanitary condition, and found the inhabitants ready to co-operate with them. Several cases of diphtheria were reported by the village doctors during the summer, which were of mild character, except three, one of which proved fatal. The Board took the precautionary steps to prevent the disease from spreading, in having these places isolated, which had the desired effect.

R. PORTEOUS,
Chairman.

POINT EDWARD.

Secretary's Report.

The sanitary condition of the village has been remarkably good during the year. There were a few cases of diphtheria in the early part of the season, and recently three cases of scarlet fever occurred. The health of the people is good with these exceptions. No medical health officer has been appointed and no meetings of the Board this year. I would advise, however, that the law relating to the public health be more stringently enforced than it has been.

W. MITCHELL,
Secretary.

[From this report it does not appear that the Board has taken any steps to prevent the further spread of the scarlet fever which has "recently" broken out. If this be so it is a scandalous neglect of duty on its part. Evasion of the law is not a praiseworthy action, more especially when the lives of human beings may be lost by not enforcing it.—ED. REPORTS.]

Port Elgin.

Medical Health Officer's Report.

I have the honour to submit the following annual report upon the sanitary conditions of Port Elgin for 1887 :

The general health of the village throughout the year has been exceptionally good. No epidemics have prevailed. A few months ago a few isolated cases of diphtheria occurred but were of a mild character and showed no tendency to spread in the families affected.

I am happy to be able to state the live interest always shown by the Local Health Board in matters of sanitary interest, and it is gratifying to remark the readiness of the citizens in general to comply with the Inspector's orders, and the pride that they at all times evince in maintaining that neatness and cleanliness observed by all strangers and so attractive to summer tourists.

The practice of throwing kitchen refuse and slop water upon the yards and in the alleys should be condemned, and I should be pleased to see some system adopted for the removal of garbage in the warm months in the more thickly settled places where wells are in close proximity. During the spring when yards are being cleaned, the filth dumping-ground should be often inspected, and a plentiful supply of quick lime used for deodorizing and disinfecting purposes.

A few weeks ago I undertook to make a careful examination of our well water. Several reliable tests were adopted, more especially with a view of detecting organic impurities, and I am happy to be able to communicate a very satisfactory result. None of the water examined was found unfit for drinking or culinary purposes, and there was a marked absence of organic impurities, though one sample shewed a small percentage of inorganic impurity due probably to a decaying curb, and suggestive of the advisability of discarding the time honoured, but nevertheless faulty, common well system.

In this connection I think all householders should adopt, when convenient, the drive well system, because all evidence points to the purity of these subterranean water supplies.

With the recent improvements in this class of wells, many towns, especially in the western prairies, have been supplied with considerable amounts of water. A number of pipes are driven down a few feet apart until a water-bearing stratum of good capacity is reached. These are all connected with a system of iron mains of graduated capacity leading to a pump. Through exhaustion the pipes are made to draw from a wide area, the amount pumped limited only by the capacity and the extent of the water-bearing strata. Such a system of one hundred pipes some fifteen feet apart, connected with a common pumping station, have proved equal in Brooklyn to supplying 5,000,000 gallons daily.

In conclusion I have pleasure in testifying to the courtesy and painstaking always shewn by Mr. Currie in the discharge of his duties as Sanitary Inspector.

J. A. McARTHUR, M.D.,
Medical Health Officer.

Port Perry.

Secretary's Report.

The health of this township (Scugog) has been so good that the Board of Health has not had anything to do this year. There has been but one case of diphtheria reported during the year. The patient recovered. There has not been any other case of an infectious or contagious disease that I am aware of.

The Medical Health Officer has not made any report, and the Board has not taken any active measures this year, consequently my report is short.

JOHN FOY,
Secretary.

PRESTON.

Secretary's Report.

Notices to the people to put their respective places in sanitary order were issued in the spring, and subsequently, on the Inspector's visits, it was ascertained that these notices were complied with in almost all cases.

There have been a few cases of diphtheria and four deaths, also a few cases of typhoid fever of a mild nature.

Disinfection, isolation, etc., carried out; otherwise the village has been in a very healthy condition.

WILLIAM A. HUSBAND,
Secretary.

STREETSVILLE.

Secretary's Report.

Slaughter houses and the pig pens connected with them have constituted the greatest nuisance the Board has had to deal with during the year, and more or less dissatisfaction has been expressed that the nuisance has not been effectually abated.

One person was prosecuted and fined, under the Public Health Act of 1884, for establishing within the municipality the offensive business of slaughtering of animals without the consent of the municipal council. But the slaughtering of animals is still (there is good reason to believe) carried on in the municipality under conditions that violate the enactments of the Public Health Act. The Sanitary Inspector, as he reports, has experienced considerable difficulty in obtaining sufficient evidence to enable him to undertake a prosecution in respect of the nuisance complained of.

In order that the law may be respected it is necessary that its administration should reach all persons alike.

There has not been a single case of infectious or contagious disease during the year, and were it not for the slaughter houses, their piggeries and the feeding of hogs with animal offal, the village would be in an excellent sanitary condition. It is to be hoped that in a little time people's own sense of right and the enforcing of health laws will remedy this state of affairs.

W. J. PINNEY,
Secretary.

WALLACEBURG.

Medical Health Officer's Report.

I have the honour to submit the following report on the sanitary conditions of the municipality during the year just closed:—

The work of the Sanitary Inspectors has been done with greater promptness and efficiency than last year, and already there is manifested by the citizens a general respect for the Public Health Acts and the officers entrusted with their administration. In April the Sanitary Inspectors visited the premises of every householder in the village and

left a copy of a circular containing the more important clauses of the Health Acts relating to the duties of householders. In the latter part of May they made another general survey of the village, and found the instructions contained in the circulars had been generally observed. It was only necessary to have recourse to legal proceedings in one case, and in that instance the owner complied with the law as soon as information was laid. There was some difficulty experienced regarding the keeping of pigs in the municipality, but by constant vigilance on the part of the sanitary officers, there was scarcely a pig to be found in the municipality during the summer months.

The village has been singularly free from zymotic diseases during the year. There There was not a single case reported until the month of August, and I am pleased to be able to state that, so far as I know, the medical practitioners here observed the law in this respect. During the year there have been reported to me 25 cases of typhoid fever, with only one death ; 8 cases of diphtheria, with three deaths ; 2 cases of scarlet fever, with no deaths. Isolation and fumigation were strictly enjoined in the cases of scarlet fever and diphtheria, with the result that, after notice of the disease was once given, in no case could it be said the disease had spread from the infected house.

What I said in my last annual report regarding water works can be repeated with double force now. Owing to the long continued drouth many of the wells in the village have been dry for months, and others have been continuously low and unfit for use during the same period. I am quite convinced that much of the diarrhœa amongst children in the latter part of summer was due to bad water. In order to prevent a recurrence of this state of things, our citizens must face the question of water works, and, fortunately, we are so favorably situated that this need not be a very formidable undertaking. And furthermore, I am assured from what I know of water works in towns no larger than ours, that if once established they could be made self-sustaining, without burdening our citizens with water rates beyond their ability or willingness to pay.

S. STEWART, M.D.,
Medical Health Officer.

WATERDOWN.

Medical Health Officer's Report.

Being your Medical Health Officer it is my duty at this time of the year to hand you in a report regarding the public health of this community.

In the first place we have every reason to feel thankful that we are so favourably situated. Nature has provided us with deep ravines that run through our village at intervals. These ravines serve a double purpose. They bring to our inhabitants a goodly supply of water and also act as sewers to carry off the waste and refuse of the place.

In the second place the situation of the village is high and therefore has no stagnant waters. Both of these are great advantages to a village.

We have not been visited by any widespread sickness or mortality during the past year. I have marked the increased interest taken by the local health officers of this municipality from year to year to prevent the spread of disease, and your efforts have been eminently successful. The proclamation alone that you caused to be posted up throughout the village compelling the inhabitants to have their privy-vaults cleaned out and disinfected by a given time has done much good. It has opened the eyes of the people to the necessity of attending to this matter. The work you have done in attending to the drainage of the village has had its good effect.

Of diphtheria I have seen some two or three cases, all of which were mild, but no scarlatina or measles. Of enteric fever I have had but two cases in this municipality, and one of these moved in here after having contracted it in another municipality. We have had very few complaints of nuisances. The sanitary condition of our village is good.

J. A. McGREGOR, M.D.,
Medical Health Officer.

WATFORD.

Secretary's Report.

In the beginning of this year our Local Board was duly formed and a Medical Health Officer and Sanitary Inspector appointed and held their first meeting early in May, with the full determination to carry out the law with respect to the Health Act. At said meeting the Sanitary Inspector reported on the work already done and what he considered necessary to be done from the many complaints made to him on the want of a proper system of drainage, without which it will be impossible to carry out the requirements of the Health Act in this municipality. I was requested to bring this matter before the council, which I did, but no action was taken by council to comply with the suggestions made to them by our Board. Without the co-operation of the municipal council little good can be done in sanitary matters. The Medical Health Officer does not think it necessary to make a report for this year. He is satisfied with the sanitary state of our village, and thinks on the whole the general health of the municipality is very good.

In the early part of the season two deaths took place from diphtheria in one family, but the disease did not spread in the neighbourhood owing to a thorough disinfecting of the premises. At present we have no contagious diseases existing, and we have every reason to be thankful for the general good health of our village.

JOHN REID,
Secretary.

WESTON.

Medical Health Officer's Report.

Diphtheria broke out in the family of an English immigrant, four of the children being attacked. I attended the various cases and had the house isolated and free use of disinfectants employed. I am sorry to say that three of them died. After hunting around for the cause of the disease I came across an old cistern, the woodwork of which was rotton. I have no doubt but this was the primary cause of the trouble. The disease did not, to my knowledge, spread, although I have heard rumours of there being other cases in the town. I am not certain, however, as I did not receive any official report of such being the case. The cistern above alluded to was closed up.

THOMAS M. SAVAGE, M.D.,
Medical Health Officer.

TOWNSHIPS.

Adelaide.

Medical Health Officer's Report.

In presenting our annual report, we beg leave to state that during the year the deaths are fewer than has been registered for many years. We have had no infectious diseases with the exception of some cases of measles last winter of a mild type; no deaths from them that I am aware of. We have been exempt from fever and diphtheria. The sanitary condition of the township is good, although we have had to have nuisances removed in two instances. The inhabitants are waking up to the fact that cleanliness saves doctors' bills, promotes health and is the best means for preventing or removing disease from our midst.

L. F. CULLIN,
Medical Health Officer.

Albemarle.

Chairman's Report.

I have the honour to present herewith the "Fourth Annual Report" of the Local Board of Health for the township of Albemarle, and in doing so feel it a matter for congratulation that during the earlier portion of the year we enjoyed perfect immunity from all contagious and infectious diseases.

We greatly regret to have to report that during the month of October and the earlier portion of November diphtheria made its appearance in the township, causing one death; but the disease was confined to but one family, and is now, we believe, entirely eradicated from our township.

As the medical health officer for this township was in attendance upon the patients, and as their friends were taking due precaution to prevent the spread of the disease, our Board did not deem it necessary for them to take any active measures in the case.

We are pleased also to have to report that the sanitary condition of the township has seldom been more satisfactory than it is at present.

ANDREW WEIR,
Chairman.

Aldboro'.

Medical Health Officer's Report.

I am pleased to report that the township has for the past year been very healthy.

With the exception of a few cases of diphtheria, I have very little to report. They were not general but showing themselves here and there among the people, several of which came under my direct observation.

There was no cases reported to me by any of the physicians, but as near as I can judge six or seven deaths have taken place from that disease.

The system of drainage which is being carried out is doing much toward removing malaria from our midst; few malarial cases have shown themselves this season among the people, while formerly they were very prevalent.

JAMES S. MUNGER, M.D.,
Medical Health Officer.

ANCASTER.

Chairman's Report.

It is gratifying to the Board to report that there is a marked improvement in the sanitary condition of this municipality within the past fifteen months, which opinion is confirmed by the reports of the Medical Health Officer and the Sanitary Inspector, who report that by comparing the number of contagious diseases and the number of deaths from them, will show that the sanitary condition of the municipality is better than it has been for the last few years. There has been one case of scarlatina, two of measles, nine of diphtheria and two of typhoid fever. Isolation and disinfectants were employed to prevent spreading.

T. A. WALKER,
Chairman.

ANDERDON.

Medical Health Officer's Report.

There was very little to do in regard to contagious and infectious diseases, but we are now threatened by diphtheria on the north and south of the township. I would suggest strict notification, isolation and disinfection and to be on the alert for next summer, as the cholera has been brought to the American shore, and would ask the Board to have all outhouses and wells thoroughly cleansed.

T. JAMES PARK, M.D.,
Medical Health Officer.

ARRAN.

Chairman's Report.

In presentiug our annual report we have great pleasure in stating that this municipality has, during the year, been free from any epidemic disease and that the general health is good, the mortality being below average. Our Sanitary Inspector has, from time to time, visited the various school houses, inspecting their sanitary condition, and while there is room for great improvement, the sanitary condition has been greatly improved.

JOHN HEVERT,
Chairman.

ATHOL.

Secretary's Report.

I have much pleasure in reporting that the health of the municipality is good ; no cases of infectious or contagious disease ; no medical health officer.

W. MOORE,
Secretary of Board.

AUGUSTA.

Medical Health Officer's Report.

I beg leave to inform you that Augusta has been very healthy for the last year. There has been no epidemic of any kind except a mild form of measles confined to the eastern side of the township in the neighbourhood of Roebuck, but as far as I can ascertain with no deaths. There has been a few sporadic cases of typhoid fever, but I think none except what has been imported into the township. There has been also some sporadic cases of diphtheria, but the disease has generally been of a mild type, more of the nature of diphtheritic sore throat than real diphtheria. I would strongly recommend the enforcement of more cleanliness about school houses and to see that the offices connected with them are kept in a proper state. I congratulate you on the comparative healthiness of the township.

A. T. DUNN, M.D.,
Medical Health Officer.

BARTON.

Chairman's Report.

There have been made very careful inspections of all slaughter houses, piggeries, fertilizing works, tallow rendering and oil works in the township, also a number of yards, cellars, privies and dwellings, and in most cases the slaughter houses and surroundings are kept in fair condition. Some were not found satisfactory, and in such cases the proprietors were at once notified to abate the nuisance, which they generally complied with. The piggeries are in many cases far worse than the slaughter houses on account of the material fed to the pigs; the swill brought from the city during the warm weather often smells very bad, and when fed in larger quantities than is eaten up right away soon causes a nuisance. The fertilizing works of Messrs. Rowlin & Co. have caused considerable trouble in looking after, and petitions have been presented praying for the abatement of the nuisance. The whole Board went and made a close examination of the premises and found that the proprietors had recently put in steam tight iron tanks, such as had been recommended some time ago by the Sanitary Inspector, but still there was some bad smell around the place. The Board suggested some changes in regard to the handling and drying, which, if complied with, we think the business could be carried on without causing any very great annoyance, as the exhaust pipes from the boiling tanks now are taken to the inlet. The tallow rendering establishment of A. McKillop has been frequently inspected, and there was found a large quantity of refuse that was smelling very bad. A notice had to be given them. There has not been so much trouble this year with the night soil, the heavy fines imposed last year taught some parties a lesson. The permission given to the Messrs. Strouds to receive it on their farm has been the means of a large quantity being taken there, and has been closely watched by the Sanitary Inspector. We are pleased to report that very few cases of typhoid, scarlet fever or diphtheria have been heard of during the year, and that the general health and sanitary condition of the township is pretty good. The expenses of the Board this year is fifty dollars, not including the inspection of night soil on Messrs. Strouds' farm.

JOHN W. GAGE,
Chairman.

BEDFORD.

Medical Health Officer's Report.

As Medical Health Officer for your township I have the honour to make the following report:—At the time of my appointment there were some cases of smallpox in the

adjoining township of Hinchinbrooke, quite near the Bedford line. I then made a tour of the township and vaccinated all who presented themselves at the various stations appointed. The number was not so large as would be expected, but this fact, I believe, was partially due to many having been previously vaccinated by physicians from the adjoining townships when the smallpox scare first arose. In that portion of Bedford more remote from Hinchinbrooke I found great carelessness on the part of parents with regard to vaccination. However, owing to proper precautions being taken by both townships in the matter of isolation, etc., the disease was confined to the one family.

You have been remarkably exempt from any widespread outbreak of disease of an epidemic nature. It is true some cases of scarlatina have come under my notice, but they were isolated, and consequently the disease did not spread. So far as I can learn no other diseases of an infectious character have visited you during the year.

There is one matter which I would like to call your attention to—that is, the ventilation of school houses, which I believe in this township could be greatly improved. Poorly ventilated school rooms is a fertile source of disease, not only tending to injure the health of the children now, but laying the foundation in them for future trouble. I would urge you to take some steps that would lead to a better system of ventilation in all our rural schools, and, believe me, you shall have my co-operation and assistance in any plan you may adopt.

ANDREW W. DWYRE, M.D.,
Medical Health Officer.

BELMONT.

Secretary's Report.

The health of the municipality has been good. There were a few cases of a mild form of measles, of which none were fatal; a few cases of scarlatina, none fatal, and a few cases of a mild form of diphtheria, two cases fatal. There has been no meeting of the Board of Health, as there was no complaints made. The council did not think it necessary to appoint a Medical Health Officer; there is, therefore, no report to make under that head.

PORTER PRESTON,
Secretary.

BENTINCK.

Secretary's Report.

In presenting to you the report of the Local Board of Health for the township of Bentinck for the year 1887, I have to state that the health record for the township for the past year has been remarkably good; the rules for cleanliness have been well observed, and there has only been one mild case of typhoid brought from Michigan, and which was immediately attended to with good results. The duties of the Board for the past year, with the exception of having nuisances in the shape of dead horses removed, have been very light.

DUNCAN CAMPBELL,
Secretary.

BERTIE.

Medical Health Officer's Report.

I regret to state that diphtheria has appeared in this municipality in two distinct localities, without, so far as I can learn, any communication with each other, or with other cases.

The first, a child of Aquilla Beems, at Stevensville, died of diphtheritic croup—from whence it was carried to two or three other families, but without any fatal cases. In the case of the dead child, Dr. Collver urged a private burial, but his wishes were not complied with, and as the facts were not reported to the Board, no steps were taken to prevent a public funeral.

The other case was a child of Solomon Baker, in my own practice, and is now convalescent, but it is too soon to tell whether others have acquired the disease. I immediately placarded the house and forbade communication with other children, and hope there will be no more cases. These cases occurred in November, up to which time for the preceding balance of the year we have had no contagious or infectious diseases; and I intended to congratulate you in my report on such freedom for the whole term. As it is we have reason to be thankful that our people have been so free from disease and that our township is in so good a sanitary condition, only a very few cases of nuisances having had to be dealt with.

N. BREWSTER, M.D.,
Medical Health Officer.

BEVERLEY.

Secretary's Report.

The work done by the Board for the year 1887 other than to meet and organize has been but small. No complaints requiring the action of the Board have been received, and the general health of the township will compare favourably with any former year. Dr. Forster reports two cases of diphtheria in his practice, and Dr. Smith two cases. No cases of typhoid have been reported. Since my last report I have registered one death caused by diphtheria, and one caused by scarlet fever.

W. McDONALD,
Secretary.

BEXLEY.

Secretary's Report.

This township during the past year has had several visitations of diphtheria and typhoid, but owing to prompt action by the Board and efficient treatment by local medical men, neither disease was allowed to spread. In each case the cause was traced directly to impure water or generally bad sanitary surroundings, but we are happy to find that people are beginning to see the direct advantage of complying with the requirements of the Public Health Act, with the result that there is a marked improvement as compared with a few years past. Our Board is properly organized, and is using its best efforts for the public good.

GEO. B. LEROY,
Secretary.

BIDDULPH.

Chairman's Report.

In accordance with the Health Act of 1884, I have the honour to submit my annual report. Strict care has been observed to prevent the accumulation of anything detrimental to the public health, and in only few cases had parties to be notified to abate the nuisance. A difficulty exists in a thorough enforcement of the Act through the

reticence of health officers giving offence, but when the knowledge of the origin of diseases and the means of their dissemination become better understood by the general public the duty of health officers will be greatly lightened. If knowledge of these things could be spread among the people, I have no doubt but it would be conducive of good. I have the honour to report the general health of the township in an excellent condition.

JOHN H. HODGINS,
Chairman Board of Health.

BLANCHARD.

Medical Health Officer's Report.

In compliance with the provisions of the Act respecting the Public Health, I beg leave to present the annual report for the year ending December 31st, 1887. This Board has, after a period of strict inactivity, been again revived. Let us hope that in the future the efforts put forth and the work accomplished by this Board may be of such value as to open the eyes of parsimonious and short-sighted economists to the benefits to be derived from sanitary measures.

The health of the municipality for the year has been very good.

In the month of April diphtheria made its appearance in two houses in one ward. Mr. Sanderson and myself visited the infected houses and had such precautions taken as to keep the disease from spreading.

In one of these families two deaths occurred out of six cases. Here the house and surroundings were in the worst possible sanitary condition. In this case we were unable to trace the source of the disease outside these unsanitary conditions. We ordered the removal of a new house which was built against the wall of the house and close to the door and well. We also ordered thorough cleansing and disinfection of the house and all clothing, and keeping of all members of the family from school or any public gathering for at least six weeks after all signs of the disease had disappeared.

We found in the next house that the lady suffering from the disease had contracted it while visiting in St. Mary's. Every precaution here was taken to prevent the spreading of disease. On the first intimation of diphtheria the school teacher, who boarded with the family, sought another boarding house. We advised that she should not return for six weeks after the disease had disappeared.

We visited the school in this section. The grounds we found undrained and saturated with water—a veritable swamp with no good means of drainage.

The well was filled to the top with water. It seems to be a good receptacle for surface water. It is impossible or next to impossible to have suitable drinking water here. The water closets were in a filthy and disgusting condition—so situated that the well must be contaminated by soakage from them. We urged that means should be taken by the trustees to have the grounds drained, the well pumped out and cleaned, and the privy pits filled up and boxes placed in the privies, and that the daily collections in these boxes be covered with dry ashes or earth to disinfect the discharges, and we added that the boxes should be frequently emptied. All the schools in the township were visited by members of the Board. Some sections were reported in a good sanitary state while many were found in an indifferent condition. Similar instructions were issued to all the sections as were given to the one above mentioned.

Diphtheria has made its appearance on the tenth concession of this township during this month; we have taken precautions to prevent its spread in this case.

Typhoid fever made its appearance in two families during the fall. The families occupy neighboring houses. This disease owes its origin to germs taken into the system principally through drinking contaminated water. Four cases have occurred in each family, and of these three have died. An examination of these dwellings and the surroundings point to the water supply as the cause of so much trouble.

It would be well for the Board to notify the public through the press or by posters the law regarding the annual cleaning of wells, and the precautions to be taken to prevent the spread of infectious diseases. By this means a great deal could be done to protect the health of the public and prevent the spread of those diseases which, when allowed to spread, prove so fatal.

The ventilation of public buildings and the heating of such buildings, as well as the water supply, are subjects worthy the consideration of this Board. The heating and ventilation of our schools, for instance, are only next in importance to a pure water supply.

Hoping that our efforts in promoting the health of the municipality may be greater in the future than in the past.

W. IRVING, M.D.,
Medical Health Officer.

BLENHEIM.

Chairman's Report.

Early in the spring the Board formed into committees to visit the school houses and slaughter houses in various parts of the township. These were found generally in a cleanly state, and any defects were promptly remedied. We have no regular Medical Health Officer appointed. The sanitary condition of our township is such that we have little to complain of. Cellars and out houses are kept clean, and our township is free (and has been for some time) from epidemics.

W. R. PENTLAND, M.D.,
Chairman.

BRANTFORD.

Medical Health Officer's Report.

It is difficult to give a correct report of the condition of this township from a sanitary point of view, as compared with last year, also the prevalence of disease and its causes. We have no appropriation of funds from Government to Local Board of Health to assist us in getting accurate and most valuable information in respect to those important matters. I am sure that a well paid, vigilant health service would contribute more to the happiness and pecuniary economy and general well-being of the people than any other branch of civil government. The inauguration in every township of a system of sanitary inspection of school houses and their surroundings, and the scientific investigation of the nature and cause of all epidemic diseases, wherever they may be found, is, I think, what should commend itself to the common sense of everyone. There have been no epidemics of any kind in the township of Brantford this year. Typhoid fever has been less prevalent south of the Grand River than usual, and, as far as I can learn, a fewer number of cases have occurred north of the river than last year. Sporadic typhoid fever is essentially a filth disease; there is no doubt in the minds of scientific medical men that this disease, which destroys so many valuable lives every year, can be stamped out altogether if the knowledge we possess is thoroughly carried into effect. The old-fashioned privy pit, which defiles the air we breathe, the water we drink, and the food we eat, is, in my experience, often responsible for the death of many an innocent victim. We have succeeded in this township in inducing some of the boards of trustees to build improved water closets, with water-tight pits, and once daily covering the excreta with dry earth. I would strongly recommend that our efficient inspector visit every school in the township once or twice yearly, and be clothed with sufficient authority to compel the trustees to carry out the most modern reform in sanitary measures. The large majority of cases of diphtheria which have come under my observation for the past two years, I have been able to trace to contagion from schoolrooms; it has been less prevalent this

year than last. It is a disease that, by the enforcement of proper remedies, can be reduced to a small percentage of mortality. I would also advise to have posted up in every school house printed instructions showing some of the most important laws regulating the health of individuals, and also have hygiene and sanitary science taught in all our common schools. When human life is rated at its true value, then, and not till then, will the government wake up to the necessity of employing able and efficient officers, at any price, to enforce laws that will preserve it.

Malaria has been the chief cause of sickness in the township this year, owing to the exceptionally dry season which we have had. There has been an insufficient quantity of water to drink, consequently impure surface water has been used, and many old bog holes, which were formerly covered by water, were dried up, and the poisonous surface exposed to the rays of the scorching sun, generating disease over a whole countryside. The day, I trust, is not far distant when all standing water, whether in mill-ponds or in swamps, will be drained by the arm of the law, if not by the reason and common sense of the poople.

I trust, gentlemen, that next year I will be able to give you a more accurate report of the diseases and their causes occurring in this township. I intend to communicate with all my medical friends located here and ask their co-operation in preparing a correct account of the number of deaths from contagious diseases and causes of death, as far as known.

Thanking you, gentlemen, for the kind hearing which you have given me in reading this very imperfect report.

D. MARQUIS, M.D.,
Medical Health Officer.

BROCK.

Medical Health Officer's Report.

In making this report we have experienced considerable difficulty in endeavoring to give an accurate account of the sanitary condition of the municipality, owing to the neglect of other medical men practicing in the municipality to report cases of contagious diseases and other items of public interest occurring in their practices.

In the spring the inspector made his usual house-to-house inspection, but this, we fear, is rapidly degenerating into a mere matter of form, some not knowing that their premises had ever been visited by the inspector. Not only should the back yards and closets be examined, but the cellars, stables, outhouses, wells, etc., should be thoroughly examined so that no decomposing animal or vegetable matter, or filth of any kind, could possibly escape detection. The authority of the Board has only once been questioned, and that was by the owner of a horse which died and was buried in the centre of the village. The inspector notified the owner and his assistants to have it removed at once, but they refused to comply with the notices; they were then subpœnaed to attend a magistrate's court and show cause why they refused to remove the carcass. The result was that they were each fined five dollars and costs, and given twenty-four hours in which to have it removed. The result was quite satisfactory, the carcass being removed forthwith. The Board is to be heartily commended for their determined action in this case.

With regard to contagious diseases, diphtheria has been unusually prevalent, there having been sixty cases reported, seven proving fatal. This fact should earnestly engage the attention of the Board and lead them to consider carefully whether they are doing everything that lies in their power to arrest the progress of this loathsome disease. The means adopted by the Board of arresting and preventing the disease are, indeed, very meagre, and consist simply in placarding the infected house, then leaving it to its fate. This, no doubt, has the effect of preventing neighbors going in, which is very desirable, but at the same time it cuts off all supplies, thus making it absolutely necessary for the inmates of the placarded house to go out and procure food and other necessaries whence they can, thus scattering the germs of the disease all around. When the Board placards

a house it is but justice to the owner and the public generally that they exercise a careful supervision over that house, examine the whole premises most thoroughly, and remove every trace of filth and dirt, see that no person is allowed to go in or out of the house, and also to see that they are properly supplied with food, medical attendance, nursing, etc. This is clearly the duty of the Board, and the municipality expects it from them.

There have been twenty-eight cases of typhoid and twenty of scarlatina reported. Fortunately, however, none of these proved fatal. Before leaving this part of our report, we feel compelled, though very reluctantly indeed, to refer again to the condition of the wells and privies. Year after year we have condemned these abominable privy pits and shown how that the water in our wells must necessarily become more or less poisoned, but all to no avail. Of course these are supposed to be inspected every spring, but unless the privies are actually running over, or the water stinking, they are passed over as being in good condition and in no way injurious to the public health. This is by no means a pleasant subject for us to refer to, and we would gladly let it pass, but we feel it our duty to urge the council to abolish these privies and establish a system of dry earth closets, the expense of which, to a wealthy municipality like ours, would be trifling, but the gain would be incalculable.

We would advise the Board to insist on all the medical men practicing in the municipality sending regular reports of contagious diseases, deaths, etc., so that we may be in a position to furnish the Board with accurate statistics for the whole township. At present we have only our own practice to refer to.

We are quite sure that the Board is willing and anxious that nothing should be left undone that would tend to the interests of the public, but that they allow themselves to be hampered by the cry of economy raised by a few narrow-minded ratepayers who are loud in their condemnation of everything that does not add to the public funds and also threaten to use their franchise against those who do not coincide with their views, but the time has come when our representatives should rise away above and beyond such petty opposition and consider first and only the welfare of the public.

Hitherto the Board has been practically a dead letter, while there has been an abundance of work to be done.

In conclusion we would again urge the Board to an active sense of their duty and responsibility, and trust that they will demonstrate to the public that they are alive to their interests by displaying an intelligent and practical knowledge of all sanitary matters, and a determination to strictly enforce the law, in which they will receive the hearty support of all right-minded citizens.

All of which is respectfully submitted.

DRS. M'DERMOTT & FIERHELLER.
Medical Health Officers.

BROOKE.

Medical Health Officer's Report.

In accordance with notice received from your secretary, W. G. Willoughby, Esq., to make our report as Board of Health and submit it to your honourable body, and as I have been appointed your Medical Health Officer for the current year, I beg to report as follows: In the first place, we have reason to be grateful that there were not many cases of contagious fevers, as typhoid, only one case came under our observation, and as for diphtheria, it is completely stamped out. This year has been unusually healthy as far as epidemic diseases are concerned. We congratulate ourselves upon the removal from our midst of so much malarial fever, from the fact that the stagnant water on the M. C. R. has been made to find an outlet to the river from our station. On the whole this community is one of the healthiest places in Canada.

ALLAN CRAWFORD, M.A., M.D.,
Medical Health Officer.

BRUCE.

Medical Health Officer's Report.

In presenting my annual report I congratulate the people of the township on their immunity from any epidemic of either contagious or infectious disease during the year.

During last winter there were some cases of diphtheritic laryngitis, a few of which proved fatal. A mild form of diphtheria has appeared lately, but no fatal case is reported as yet.

Measles and whooping cough have been prevalent, but both of a mild and favourable type.

On the whole, the sanitary condition of the township has been exceptionally good during the year.

A. MACKAY, M.D.,
Medical Health Officer.

BRANT.

Secretary's Report.

The township for the last year has been kept in good sanitary condition, the inspector having visited all the school houses, slaughter houses, cheese factories, and creameries, and reported the same in good condition.

The Medical Health Officer reports two cases of diphtheria, but the parties recovered; he visited the premises and had them properly disinfected.

JAS. S. LAURIE,
Secretary.

BURFORD.

Medical Health Officer's Report.

The only cases of infectious diseases, of which I am aware from official returns and personal observation, occurring since last annual report up to this date in this township, were: measles, two cases; whooping-cough, one case, and typhoid fever, two cases, which recovered. Rumors have been current that diphtheria has been in this township this year, but I have had no return of such from the physician in attendance, and on presenting a blank return form to the householder to be filled in, he denied that it was then in his house.

A dog was observed devouring excrement from one whom I knew had a bad attack of typhoid fever at that time. The dog was kept under observation for weeks and has remained apparently quite healthy.

I should judge that the health of the drained portions of our township will be favourably affected by the extensive drainage operations lately carried to completion therein.

I have to recommend to your notice the Harbottle system of properly ventilating buildings.

I have omitted many mechanical details and have possibly been prolix.

ROBERT HARBOTTLE, M.B.,
Medical Health Officer.

Sanitary Inspector's Report.

All complaints regarding unsanitary condition have been attended to. The nuisances have been abated but with considerable trouble, in one instance at least. Hog pens and

slaughter houses are now in a better condition than for some years. Not long since Dr. Harbottle, medical health officer for the township, received a card from Dr. Durand, saying that he understood from some of his patients that there was a dead animal lying unburied, but he did not state in what locality it was. I did not feel justified in putting the township to the expense of a visit without having something more definite to work on.

ALBERT LESTER,
Sanitary Inspector.

CAISTOR.

Secretary's Report.

The Municipal Council of Caistor has not carried out the regulations more than to appoint members of a local board. We have no medical health officer appointed. I would say, however, that the health of the people of the township has been remarkably good, considering the bad state of the water supply, on account of the severe drouth we have passed through, the wells and cisterns being all about dried up, and the people had to use water that in other seasons would have been considered unfit for use, the water in the drilled wells being unfit for culinary purposes, only good for stock; we have not as yet seen any bad results from the water famine.

We have a few cases of whooping-cough, and that is about all the infectious disease that is among us.

H. J. SHARP,
Secretary.

CALEDON.

Medical Health Officer's Report.

In laying before you my third annual report, I must congratulate you on the lightness of your duties during the past year, so much so that this, our annual meeting, is our only meeting during the year. We have, however, been free from anything like an epidemic, although the returns show an increase of typhoid fever. Owing to the continual drouth the supply of water for drinking purposes has in some localities been insufficient; the only instance in which the disease assumed anything like the form of a local epidemic, was the outbreak in the village of Credit Forks; during the months of September and October five cases occurred there consecutively in houses adjacent to each other. These cases I found due to two distinct causes—bad hygienic conditions, and to impure drinking water. The houses in this village are closely huddled together, and the lots being very small, the privies are, in many instances, immediately behind the back door; there the slops are thrown just outside of the door and form regular hot-beds of filth. Strangely enough, there is not a well in the whole village, the only supply of drinking water being from two springs; one situated near the Credit River behind a row of houses, the other by the road side to which cows and pigs have access. I took samples of water from each of these springs and made a rough analysis of them; the one contained a large amount of salines, evidently caused by soakage from the privies; the other by the road side contained a large amount of organic matter evidently from access of surface water. The spring by the road side, if properly cleaned and drained and protected from cows and pigs, might give a fair supply of drinking water, but no one seems to take any special interest in it—so it remains in a neglected condition.

Being frequently called to Credit Forks professionally, I made almost a house to house visitation, advising the people to clean out or remove their privies, but very few ever took the trouble to follow my advice. In this connection I wish to make a suggestion, viz., that the Board procure printed cards requesting that all wells and privies be

cleaned in accordance with the "Health Act," these cards to be placed in Post Offices and other public places, every spring, and then returned to the health officer until they again require to be posted up during the following spring. When I ascertain that there is more than one case of infectious disease in any particular part of the township, I then visit that particular locality and make enquiry into the general surroundings, means of disinfection used and isolation of the patients. In passing through the Village of Cataract one evening, I was called in by a lady to see her daughter, aged seven, who, she said, was very ill; I found her suffering from the first symptom of scarlet fever, and from the intensity of the symptons, judged that the attack would be very violent; in this our fears were realized, for at the end of the second week the little patient died from exhaustion. There had been no cases of scarlet fever in that neighbourhood for about a year, the mother had not taken the child any place where scarlet fever had been, nor had anyone from a distance been visiting her, and I was at a loss to account for the source of the contagion. However, just five days previous to the child taking ill, her mother had taken her up to Alton Village, three miles distant on the C. P. R., but as there had been no cases in Alton for nearly twelve months, I concluded that she must have come in contact with some infected person on the train. I accidentally learned that a child of conductor H——— of the C. P. R. had just died of scarlet fever in the town of Elora two days after the death of my little patient; I intervied the conductor on the first opportunity, and found that scarlet fever had been in his family for about a month, all the other children having recovered. He then remembered that on the night my little patient and her mother had gone to Alton, he had nursed the little girl on his knee for about half an hour. This brought the source of infection to light, and the conductor being a conscientous man, felt shocked that he had unwittingly been the means of spreading a dangerous disease. Had his "official clothes" been disinfected and had he been isolated from his family as much as possible, this little girl would, no doubt, be alive and well. It is impossible to say how many other children passing through on his train may have been infected, and what trouble and suffering might have been saved had proper precautions been used. It simply shows the necessity for the disinfection of public conveyances, viz., steamboats, railways, stages, etc., and that the officials in charge of the same should be kept separate from any source of contagion.

My tabulated report is incomplete, but is more thorough than any previous one.

	Cases.	Deaths.
Typhoid Fever	27	4
Scarlet Fever	6	1
Diphtheria	17	2

Cases of measles are not reported, nor is mumps or chicken-pox, as in these cases it is not very often that the physician is called in.

In conclusion, let me say that although our duties during the past year have been light, it is always a satisfaction to know that we are in a position to act with promptness and decision should occasion or necessity require it, and that our principal duty is to be ready at all times to act in the interest of the public health.

JAS. ALGIE, M.B.,
Medical Health Officer.

CALEDONIA.

Secretary's Report.

I have the honour to report that the general sanitary condition of this township during the past year appears to have been good. We have no slaughter houses, tanneries, and only two cheese factories within the township, and they are isolated from dwelling houses.

There were no cases of contagious or infectious diseases up till the autumn, when a

serious outbreak of diphtheria occurred in a back settlement, caused, it is supposed, by the water not being good, the locality being low and swampy; and although the disease was confined to a few houses, it was of a most malignant type and there were a number of deaths.

But as neither the physicians nor the householders reported or brought the matter before the Board of Health, I myself determined to take the matter in hand, and on the 29th of November I notified the Board to meet. A meeting was held that day, and although there was no complaint to act upon, it was determined to stamp the disease out at all costs. The Medical Health Officer was notified to examine the families of the locality and report where they had the disease. He did so, and the three infected houses were quarantined and a guard placed over them, the schools in three school sections stopped for a time, and other measures taken to prevent the spread of the disease. I am happy to report that there have been no new cases for two weeks, and we think we have it effectually checked. The number of deaths was upwards of twenty.

I would respectfully suggest a more general distribution of the Health Laws and other pamphlets on the subject, printed in French as well as English, for the information of the people, a large proportion of whom still believe that those diseases are not contagious, but are sent by the Almighty, and that it is wrong to interfere with His will. They fiercely resent all attempts to enforce the Health Act.

JOHN DOWNING,
Secretary.

CAMBRIDGE.

Secretary's Report.

The Local Board of Health of this township met several times during the year, and generally, when any disease was discovered to exist, the general rules adopted then were the placarding of houses which had become infected and a guardian appointed by the Board for the purpose of seeing to the wants of such isolated families, and also for preventing the public to mingle with them. This had the effect of stamping out the disease at once. We have had, to my knowledge, about twenty cases of diphtheria among the children, which resulted in the death of five or six; there were also a good many cases of measles, typhoid and scarlatina, but without any fatal results. We have had no other kind of disease or epidemic during the year, and with the exception of a few cases of diphtheria at the time of making this report, this township is in a very good sanitary condition.

The report of the Medical Health Officer is not yet received.

O. LAFRANCE,
Secretary.

CARTWRIGHT.

Secretary's Report.

In the month of May, 1887, the local practising physician reported four cases of typhoid fever, in June one case, and in July two cases of the same disease, all of the seven cases being in one family, and only one of which proved fatal—a person 70 years old.

This Board took every precaution to have the village thoroughly cleansed, and the premises, where the disease was, cleansed and isolated as far as possible.

WM. LUCAS,
Secretary.

Charlotteville.

Medical Health Officer's Report.

I take pleasure in submitting to you my annual report as Medical Health Officer for the Township of Charlotteville.

The first part of this year passed over with little or nothing worthy of mention, except the absence of an epidemic of any contagious disease.

We were visited with our usual amount of sickness and of its usual character, but the long continued heat and drouth of summer and early autumn brought down as its victims many of all classes and ages. During the month of August and the greater part of September, diarrhœa, dysentery and malarial fever raged rampant. Yet the mortality was less than the average, not only as the result of our sanitary organization, but also from the fact that the inhabitants of this municipality apply for medical aid at an earlier date of their sickness than they used to do, which is all important in the treatment of all such diseases, and hence the more favorable result.

Diphtheria appeared in October. Was carried home by a young lad who contracted the disease while visiting friends in the town of Simcoe, and, though appearing in three other families since, it has not, at the time of making this report, spread beyond the families first attacked; but on account of the proximity to school house of one of the families seized with diphtheria, it was deemed prudent to close the school until the disease had disappeared from that locality.

In conclusion, I wish to call your attention to the very slovenly, careless and unsanitary kept condition of the school rooms throughout this municipality.

W. J. McINNES, M.D.,
Medical Health Officer.

Clarke.

Chairman's Report.

I beg to submit the following report respecting the sanitary condition of the municipality for the current year 1887. The Board met twice only during the year, the last session thereof being held on the 28th day of November inst. It has not yet been deemed necessary to appoint either a Medical Health Officer or a Sanitary Inspector, but the Board divided the municipality into five divisions or beats, and placed them under the supervision of the members respectively. They were instructed to visit all places in their beats suspected to be kept in an unwholesome manner, and to notify the occupants to put their premises in a sanitary condition as the law directs.

The township during the present year has been almost entirely exempt from any infectious or contagious disease excepting three cases of typhoid fever of a mild form. No deaths.

The Board is prepared to put the whole machinery of the law in operation if necessary to prevent the spread of contagious and infectious disease should such appear in the township.

JOSEPH JACOBS,
Chairman.

Colchester North.

Medical Health Officer's Report.

My report for Colchester North is brief. No epidemics have visited us. Diphtheria only in one family, with one death, and a few cases of typho-malarial fever—all making good recovery—is the sum total of our serious diseases during the year.

The township is level, and in it are still large blocks of bush; but we account for the good health of the people by the very systematic drainage of the whole township, which has been done within the last few years.

E. PROUSE, M.D.,
Medical Health Officer.

CROSBY NORTH.

Secretary's Report.

In obedience to your circular of Nov. 18th, I send you the annual report of Board of Health for the Township of North Crosby for the year 1887 :—

There was no Medical Health Officer appointed for this township.

There has been very little work done by the Board this year; we have had only two meetings.

The health of the people in this township has been all that could be desired until within a few weeks. There have been five cases of diphtheria recently, resulting in one death. The other cases are recovering, and we hope, with proper care, it will not spread beyond its present limits. There have been no cases of typhoid fever or other infectious disease in our township within the year.

JOHN McGUIRE,
Secretary.

CROWLAND.

Medical Health Officer's Report.

As Medical Health Officer, and in compliance with schedule "A." of the Public Health Act of 1884, I beg to submit my annual report respecting the sanitary condition of this district.

The general sanitary condition of this municipality will compare favourably with the more healthy of those throughout the Province, there being, with perhaps one or two exceptions, no locality from which we might reasonably expect poisonous effluvia which might develope or, at least, so contaminate the atmosphere as to favor the spread of contagious diseases. I know of no complaints having been made, and so far as my knowledge of residents of the municipality goes, I have reason to think they cheerfully wish to comply with the requirements of the Public Health Act.

I am not aware that we have had any contagious diseases with the exception of measles, scarlet fever and diphtheria, and these have not been very prevalent; the cases of the two former having been of a mild type; in the latter, however, some of the cases were very malignant.

At Cook's Mills we have had, for a number of years past, an occasional outbreak of diphtheria, the type of which has been more than usually severe. Whether the decomposition that has been going on in the refuse connected with the old saw mill and tannery has or has not been productive of disease germs, it is certain that the most malignant type of this disease that I have had to contend with in my professional capacity has been in this immediate neighbourhood.

JAS. SCHOOLY,
Medical Health Officer.

DARLINGTON.

Secretary's Report.

The Township Council of Darlington appointed a Board of Health and a Health Officer. But there has been nothing requiring their attention, and nothing has been done. The sanitary condition of the township is excellent.

R. WINDATT,
Secretary.

Derby.

Medical Health Officer's Report.

The absence from our midst of epidemical, contagious and malarial diseases is a fact patent to your Board and worthy of congratulation by the inhabitants of the township. The untiring efforts in the work of sanitation of the Local Board of Health from its first organization can only be appreciated by the people at large for whose benefit sanitary laws have been called into existence. The Health Inspector has, in his good judgment, exercised his authority in matters pertaining to the public health to the entire satisfaction of the municipality. The Board may congratulate itself on the fact that through its existence and prompt performance of its functions, an immunity from disease has been secured to the people.

CHAS. E. BARNHART, M.D.,
Medical Health Officer.

Dereham.

Medical Health Officer's Report.

In making my annual report for the year 1887, I regret to state that I am unable to report with exactness the amount of sickness in this municipality during the year, as the medical men of this locality have not reported to me concerning any of the cases under their care. But so far as I have been able to ascertain I think we have abundant reason to congratulate ourselves on the absence of any serious epidemic of any kind, especially when we take into consideration the intense heat of the summer months and the extreme scarcity of pure water for household purposes. We have been comparatively free from contagious or infectious diseases, with the exception of a few cases of typhoid fever of a very mild type. I have heard of but one case of diphtheria in this division. We have also been free from scarlet fever in this neighbourhood, although I have attended a few cases in the municipality south of us; also, I saw a few cases in the north half of the township; also a few cases of mumps, but all were mild cases and made rapid and complete recovery. So far as I am able to learn the Health Inspector and members of the Board of Health have endeavoured to discharge their duty.

H. MINSHALL, M.D,
Medical Health Officer.

Dorchester North.

Secretary's Report.

The Local Board of Health of the township of North Dorchester, in the County of Middlesex, would respectively report for the year 1887 as follows:—

The Local Board has not experienced the least trouble in carrying out the provisions of the Public Health Act, as the residents of this township have at all times shown a cordial disposition to carry out whatever orders and suggestions the Board was called upon to make. The sanitary condition of the township and the health of the inhabitants are in a very good condition for this term.

Diphtheria has broken out two or three times, but owing to the manner in which the cases were watched and the houses quarantined the disease was strictly confined to one or two houses at each time. There were ten deaths. The disease had spread to the second family before the doctor in attendance was aware of the character of the disease, but by strict observance of the law it did not spread any further. The Board at present is in a good working condition and is using its best efforts in the cause of public health.

D. P. AYLSWORTH,
Secretary.

DRAPER.

Secretary's Report.

Owing to the excellent sanitary condition of these townships during the past year the Chairman did not consider it necessary to call the board together. There has not been a case of any contagious disease; the deaths have been few and confined to infants and elderly persons. The Board has always been prepared to act should occasion arise, but as above stated it was not required.

FRED. N. TOYE,
Secretary.

DUMFRIES NORTH.

Medical Health Officer's Report.

In compliance with the Statute of 1884, I beg to report that I have again visited the schools of the township to ascertain their sanitary condition, and to secure the co-operation of the trustees and teachers in effecting such changes as may conduce to an improved state of the premises and health of the pupils.

The topics which I conceive to be more immediately within my province, and which most directly affect the health of the pupils, are: School sites, heating and ventilation of the rooms, admission and direction of light, general cleanliness of the house and water closets, water supply, epidemics, unsuccessful vaccinations, etc.

With regard to the school sites I think it much to be regretted that so many have not chosen wisely. It is a matter of surprise that in a township where land is comparably cheap, and the aggregate wealth of each section so great, that small and unsuitable sites should in any instance have been selected. To such as contemplate change in the near future I would suggest that ample grounds for out-door play—say two, three or more acres, with easy drainage, be selected. The house should have a southern aspect, so that the open door may readily admit sunlight and warmth, and better that it occupy the back of the lot so that water closets can be more effectually separated and removed from the play-ground. Heating in most all the schools is defective, heated as most of them are by large box stoves situated either at the entrance or near the centre of the rooms, and when required to be operated in "full blast" makes pupils near it most insufferably hot, while others most distant suffer from cold. To remedy this various plans have been suggested. To me one of the most commendable is the "Jacket Stove," with tubes opening upon its heated surface within the jacket, coming from without, bringing in pure air. In addition to this I would suggest that each school room be supplied with open fire-place or grate-stove, at which, during cold weather, pupils could be more quickly and thoroughly warmed upon arrival at school. This open fire-place, or grate, having a flue extending from the floor to the top of the building, would supply a most efficient means of ventilation. Even in mild weather, with a modicum of fuel to warm the flue, it would more effectually remove the impure, oft-breathed air of the room than almost any other way. The only means of ventilation in the schools is by the doors, windows and apertures in the ceilings. In some instances these holes were nearly over the stoves, permitting the escape of much of the heat and doing nothing to relieve cold feet.

The window sashes in a few instances were suspended, and when ventilating the room from this quarter there was, with one exception, no provision to prevent direct draft upon the children. The appliances to the sashes to remedy this condition have been suggested to trustees and teachers. I regard the defective ventilation of the school rooms as one of the most vitally important matters that concerns the health of the schools. When we reflect that a thousand cubic feet of pure air is about the normal amount required by each individual, and that this amount requires changing three times per hour, you will be able to appreciate the force of my remarks, when I tell you that the average cubical capacity

of the schools in this township is a trifle less than 273 cubic feet per pupil, and by re-breathing becomes unfit for respiration long before recess, unless the teacher finds his own sensibilities blunted by the same agency, suspects the insidious cause and attempts to remedy the condition from window or door. I hope, through Dr. Cassidy, Member of Provincial Board of Health, Toronto, to be able to supply a very accurate and inexpensive means of determining the condition of the air in school rooms when unfit for respiration. This, with two or three thermometers in each school room, will enable the intelligent teacher to determine the rate at which all are being poisoned, and enable him to mitigate or prevent somewhat a condition of impure atmosphere which seems inseparable from school rooms.

In one instance only was the water supply found, upon analysis, unfit for use. The proximity of wells to water closets and the chances of surface contamination have been noted and the trustees advised in the matter. I have also enjoined upon them to have the wells containing large bodies of water pumped out after spring thawing and mid-summer vacation, and to carefully guard at all times against surface water contamination.

The objectionable condition of the water closets so noticeable last year has with one exception been corrected. That instance was again brought to my notice by the Inspector of Schools. I am now assured by one of the trustees that this most filthy and disgusting condition has been put in order. With this exception all trustees and teachers have cheerfully complied with my advice, and, I believe, have attended to the means advised to have all closets regularly disinfected, as well as to put and maintain in a sanitary condition the entire premises. I am pleased to be able to report that most of the rooms were found in a fair state of cleanliness. School Section No. 26 was exceptionally good, and but one had not been scrubbed or especially cleaned to the teacher's knowledge, though he had been there for three years. It has, however, undergone a cleaning process by which that antiquated musty smell has quite disappeared. Those school rooms that were clean, bright and devoid of that familiar odour are quite too few.

The sweeping is generally done by the children at noon, and hence insufficient dusting afterwards. I have advised scrubbing and cleaning all wood work twice a year and in some cases oftener. The seating in most of the schools consists of two, or at most three, grades of seats : as in almost all schools there is a very noticeable want of adaptation of pupil and seat, injurious consequences too frequently follow to both form and vision. Some are seated at desks so high that a most unnatural position was necessary to write, and the face at all times so close to work that injury to vision is likely to ensue. I indulge the hope that a seat will yet be devised that can in a moment be adjusted to suit each pupil, and the liability to distorted spines obviated. No reports of epidemics seriously interfering with the schools have existed. Recently No. 26 had an outbreak of diphtheria, and it was thought better to close to prevent spreading. The school has re-opened. I am not aware that any pupils are now kept out from this cause.

The number of pupils who had not been successfully vaccinated was very small. I enjoined upon the parents through the children to comply immediately with the requirements of the law in that regard.

Mr. Chairman, in concluding this general report of work done in the schools, I wish to say that from the nature of my work and its relation to the trustees of the schools in their capacity as custodians of the school property, I have thought it would be carrying out the object of my mission more effectually to make special reports in detail to the trustees of the several sections who are in a position to remedy all matters complained of.

J. B. LUNDY, M.D.,
Medical Health Officer.

DUMFRIES SOUTH.

Medical Health Officer's Report.

In submitting to you my report for the past year it gives me great pleasure to state that the health of the township has been good ; we have escaped all epidemics. The

fevers and throat troubles occurring at this season of the year have been to my knowledge absent. It is a satisfaction to state that the number of complaints have been few during the year, showing that the people of the township are seeing the benefit of keeping their premises in a clean and sanitary condition, thereby relieving the labours of your Board.

E. C. KITCHEN, M.D.,
Medical Health Officer.

DUMMER.

Secretary's Report.

The Chairman of the Local Board of Health has presented no report to council to date, no doubt through inadvertence. Council has not appointed a Medical Health Officer for the township. The Local Board has practically done nothing. I may state that as far as my knowledge goes the sanitary condition of the township for the year has been very fair. No unusual amount of sickness; no epidemic of a serious nature, such as typhoid, diphtheria, etc. A few have had the measles, with no serious results as far as I know.

WM. DARLING,
Secretary.

DUNGANNON AND FARADAY.

Secretary's Report.

I have the honour to inform you that the health of this municipality has been remarkably good during the whole of the year up to the month of November. Sore throat then became very prevalent, and at length a serious outbreak of diphtheria took place at the village of Bancroft and in its neighbourhood, and three deaths occurred. Our Reeve, Mr. D. Kavanagh, the Chairman of the Board of Health, went to the village and took steps to have the different residences disinfected where the sickness had been, and now, I believe, the disease is completely stamped out in this locality.

A. C. BARKER,
Secretary.

EASTHOPE, SOUTH.

Medical Health Officer's Report.

This municipality has been free from any infectious or epidemic diseases, generally so called, during the past year, with the exception of three cases of diphtheria and one of typhoid fever, which were imported from outside municipalities. Due precaution and disinfection having been employed, the disease did not spread. The general sanitary condition of the township and health of the people are good.

J. P. RANKIN, M.D.,
Medical Health Officer.

EDWARDSBURG.

Medical Health Officer's Report.

The Board of Health for this township has had no regular meeting this year. We have had no contagious diseases during the year, which may account for the Board not being called together.

S. C. McLEAN, M.D.,
Medical Health Officer.

EGREMONT.

Secretary's Report.

The Medical Health Officer reports nine cases of typhoid, supposed to be caused by impure water, other cases may have existed within the municipality but are not reported by other physicians. The members of the Local Board have regard to the sanitary requirements of each respective district, and any nuisances known or reported are immediately removed. The township is in a good sanitary condition.

DAVID ALLAN,
Secretary.

EKFRID.

Secretary's Report.

The Local Board of Health for this township met several times during the year. The only unsanitary condition calling for the interference of the Board was a slaughter house. It was proved by the evidence of parties that a nuisance dangerous to the public health was in said slaughter house, and the Board promptly served a notice on its owner to have it abated within three days of receipt of said notice. The party higgled a little trying to evade the law and the Board's mandate, but after coolly considering the matter he came to the conclusion that it would be better for him to clean up, which he did. The township is in a good sanitary condition and the health of the people excellent.

H. McFARLANE,
Secretary.

ELDERSLIE.

Chairman's Report.

This Board is pleased to report that during the past year no case of contagious or infectious disease has been brought to our notice, with the exception of one case of diphtheria. This is greatly owing to the circumstance that there are two incorporated villages within the bounds of the original corporation, and that the floating population, trades, and manufacturing industries that create nuisances are located in said villages. The school premises have all been kept in a proper state of cleanliness.

DONALD McINTYRE,
Chairman.

ELMA.

Secretary's Report.

In the beginning of the year all owners or managers of all cheese factories in the township of Elma, and the owners of all slaughter houses were notified by me, as Secretary, by order of the Board, that all cheese factories and surroundings must be kept in a clean and healthy state, and all slaughter houses must be removed the legal distance from all dwelling houses and public roads, and also kept in a clean and healthy condition.

The Board believe that everything was kept in a good state of cleanliness, as not one single complaint was made during the year.

The general health of the municipality during the year was very good. No infectious or contagious diseases of any extent occurred during the year.

The sanitary condition of the municipality is improving. A great deal of drainage has taken place throughout the township and greatly assists in taking away the surplus water which would otherwise (and did heretofore) remain stagnant.

THOS. FULLARTON,
Secretary.

ELMSLEY, NORTH.

Secretary's Report.

We have no Medical Health Officer appointed. The diseases prevailing here during the past year were typhoid fever and measles. The former caused three deaths. Cause supposed to be draining the water off the river to repair dams. The sentiments of the people are to assist the Local Board in anything regarding the welfare of the public health.

P. McKINLEY,
Secretary.

ERAMOSA.

Medical Health Officer's Report.

In presenting my annual report as Medical Health Officer for the municipality of Eramosa, I have again to congratulate you on the freedom of the district from any epidemic of infectious or contagious nature whatever, and that the sanitary condition of the township has been very good and is now excellent.

J. R. DRYDEN,
Medical Health Officer.

ERIN.

Medical Health Officer's Report.

In submitting this my second annual report I have very little to add to what I already sent you some weeks since. In the eastern part of the township a considerable number of cases of diphtheria have occurred but no deaths. In the northern part of the township I have treated nine cases with one death, but in neither instance could any defect be found as to the sanitary condition of the place. Seven of these nine cases were in one house and the other two were relatives of this family, and we believe it was

communicated by their visiting. One other case of diphtheria that is at present under my care, which occurred in this village, but I cannot attribute to the house in which patient lived the cause. Since I sent you a report of cases a few weeks ago, I have had one case only of typhoid fever, and I am of opinion that the cause in this case is traceable in part to carelessness of the family in disposing of refuse from their house, as well as from the very unsanitary condition of one of the neighbor's dwellings, about which I to-day have requested the Local Health Board to at once call a meeting to take steps to have same remedied. Measles, scarlet fever and whooping-cough cases have been exceptional.

A. H. McKINNON, M.D.,
Medical Health Officer.

ERNESTOWN.

Medical Health Officer's Report.

In accordance with the Statutes, I have the honour to lay before you my annual report for the year 1887. The sanitary condition of the municipality during the year has been fairly good. There have been a few cases of diphtheria, also a few of typhoid in the township, but no deaths. In each case the patient was isolated and the spread of the disease prevented. I was only called on to make one inspection during the year. The proprietor of the cheese factory complained of has agreed to make all repairs necessary during the coming winter.

J. E. MABEE, M.D.,
Medical Health Officer.

ESQUESING.

Chairman's Report.

I beg to report, on behalf of the Board of Health, as follows :—

Having no medical health officer no official report of contagious diseases has been received during the year.

The Sanitary Inspector reports that the sanitary condition of the several villages of the township is good.

Physicians have made no report of contagious diseases attended by them. This is to be regretted, as it would conduce very materially to a more efficient discharge of the duties of the Board, and also be a reminder to the people of the necessity of care in preventing the spread of such disease. Moreover, in view of the fact that the dread disease, cholera, has appeared near New York, too much attention cannot be given both by the Council and the Board of Health during the ensuing spring, to have not only the villages of the township but all other places as well put in a proper sanitary condition, and thus prevent, as far as possible, the introduction and spread amongst the inhabitants of contagious diseases.

N. LINDSAY,
Chairman.

ESSA.

Secretary's Report.

I beg to state that there has been no epidemic prevailing in the township of Essa during the present year. There have been a few isolated cases of typhoid fever and

diphtheria, but none proving fatal that I have heard of. The township is well watered by creeks and rivers and never failing springs. No scarcity of good wholesome water has been felt in any part—one cause of our healthfulness.

J. W. Norris, M.D., is our Medical Health Officer. Our Board of Health is composed of some ten or twelve persons*, two of whom reside close together, and are chosen in the different parts of the townsbip, so that no epidemic can arise without the knowledge of some member of the Board of Health. Our by-law lays down rules for the guidance of its members based upon the Health Act, and all the members of the Board are required to use all diligence in looking after the sanitary condition of his neighbourhood, and to report the first appearance of disease of an infectious nature.

R. T. BANTING,
Secretary of Board.

EUPHRASIA.

Secretary's Report.

The Board met on January 31st, 1887. Dr. Sproule was appointed Medical Health Officer. A resolution was passed that each member of the Board use all possible diligence in ascertaining the sanitary condition of the municipality, and report to the Medical Health Officer all knowledge that may be obtained regarding any case of small pox, scarlet fever, diphtheria, or typhoid, or any other infectious or dangerous disease within the municipality.

The Board met again on 3rd December, 1887, and four cases of typhoid fever were reported. One case was traced to stagnant water. One young man brought the disease from the United States. Three of these cases of typhoid fever were treated by our Medical Health Officer. No deaths. Several transactions in abating nuisances and burying of dead animals were reported at last meeting of our local board. We had a report also that Dr. Sproule, our Medical Health Officer, had made his report to the central board.

ROBERT DUNLOP,
Secretary.

FITZROY.

Medical Health Officer's Report.

As Medical Health Officer for the township of Fitzroy, I have to report the year just drawing to a close as an exceptionally healthy one in this district. The municipality has been free from contagious diseases, if we may except a few isolated cases of typhoid fever, one of which, I am sorry to report, proved fatal about the fourteenth day. The physicians in attendance used all the necessary precautions to prevent the spread of the disease.

Typhoid fever in this section generally makes its appearance in autumn, especially after very dry summers, but no season of the year is entirely exempt. The cases that exist at present have been attributed to the great drouth, which has not only reduced the quantity but injured the quality of the supply of water.

J. G. BAIRD, M.D.,
Medical Health Officer.

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*The Chairman, Secretary and three Ratepayers are all that the Act requires to constitute a Local Board of a Township.—ED. REPORTS.

FLAMBORO', EAST.

Medical Health Officer's Report.

In submitting my report as your Medical Health Officer, I beg leave to congratulate you on the very healthy condition of the people of the township.

No contagious disease of a fatal character has been in our midst since my term of office commenced in August last. We have had a few cases of typhoid, but all of a mild type. No cause for the cases of typhoid was found, as far as I am aware. We have been exceptionally free from the dread diseases of diphtheria and scarlet fever, which have, on previous occasions, committed such ravages throughout the township. I would just like to make a suggestion, and that is, that some measure be taken to have funerals of persons dying with diphtheria, typhoid and scarlet fever, more private than I have noticed them. In many instances in other parts of our Province, public interments have been the agents in directly spreading disease.

I must also congratulate the Board on the extensive system of drainage that is being carried out in the swamp lands, in the centre of the township. The drying up of these lands, and so preventing the evaporation of water impregnated with the germs of malarial and other diseases, cannot help improving the health of the people in these districts. I earnestly hope the office of Medical Health Officer may prove as much of a sinecure in the future as it has done during my term.

J. D. COURTENAY, M.D.,
Medical Health Officer.

FLAMBORO', WEST.

Medical Health Officer's Report.

In accordance with the requirements of the by-law respecting Public Health, I beg leave to report that the number of cases reported during the year of scarlet fever was seventeen, all of which were of a mild form ; typhoid fever, thirty-six cases ; diphtheria, six cases, five of the last mentioned being from causes unknown and one from a filthy cellar. The laws respecting Public Health have, as a whole, been complied with, as the inhabitants highly appreciate the value of the Act. The only infectious disease at present are a few cases of scarlet fever of a mild form. The Sanitary Inspector reports that the municipality is in a cleanly condition, and that very few complaints have been made to him since his annual inspection, and that there is a general feeling in the municipality to comply with the requirements of the Act, as the inhabitants perceive the benefits accruing therefrom.

A. E. STUTT, M.D.,
Medical Health Officer.

FREDERICKSBURG, NORTH.

Secretary's Report.

At our first meeting of the Board we notified all owners of cheese-factories in our township that they would be required to comply in every particular with the Public Health Acts. We also had our Medical Health Officer inspect a portion of our township which had been visited by diphtheria, and to placard every house which contained contagious disease.

Complaints were made to the Board in reference to the sanitary condition of the cheese-factories, and we held a special meeting on June 20th.

We notified Mr. Woodcock to close his factory and place new vats so as to meet the apprvoal of our Medical Health Officer, otherwise he would not be allowed to manufacture cheese in this township.

We also had Mr. McCargar disinfect a ditch where whey had been running into from his whey vat, which made a perceptible improvement about his factory.

There have been a few cases of diphtheria in the township, but not as many as the previous year.

As a whole, we think that this township is in a very good condition.

P. R. McCABE,
Secretary.

GAINSBOROUGH.

Medical Health Officer's Report.

The sanitary condition of the township has been good. We have had six cases of scarlet fever of a mild type, one typhoid case, quite a large number of cases of measles last spring, a few very mild cases of diphtheria; but no deaths have occurred from any contagious or epidemic disease.

I am not aware of any having been vaccinated within the township during the last year.

Five hundred copies of Schedule A, of Health Act, were distributed throughout the township. All complaints of unsanitary conditions were promptly attended to.

J. W. COLLVER, M.D.,
Medical Health Officer.

GARAFRAXA, WEST.

Chairman's Report.

The Board of Health for the township of West Garafraxa beg leave to present you with the following report for the current year. The sanitary condition of the municipality as a whole is in a fairly good condition. We have enjoyed almost perfect immunity from any infectious diseases, such as diphtheria, scarlatina or small pox, during the past year. Regarding the two cases of typhoid fever which have occurred in the municipality, they were confined to the one family affected. We have made every enquiry as to the source of water used in the house of those suffering from typhoid fever, but with no definite results. No doubt the intense heat of the past summer, coupled with the scarcity of water, were factors. All wells, not already cleaned out, should be attended to at once. We are not prepared to state the exact number of cases which have occurred, as no return has been furnished to the Board by outside medical practitioners of cases under their attention. Our attention was called to two nuisances, which we caused to be removed.

HARVEY CULL,
Chairman

GEORGINA.

Medical Health Officer's Report.

I beg to make the following report for the year 1887: With the exception of diphtheria, this township has enjoyed a blessed immunity from contagious diseases during the year now drawing to a close. I find, on reference to minutes, that our Board has met six times, five of which were *re* diphtheria. Cases of this disease were reported to us March 16, April 7, 12, and May 26. In point of time one would naturally conclude that

these cases arose from each other, or from a common source. Against this conclusion stands the fact that, with the exception of the last two cases, they were at different and widely separated parts of the township, not to mention the efforts we made to prevent contagion from spreading in each case. In all cases the Board placarded the houses, isolated the patients, and took all the other means recommended to prevent the spread of the disease. One case was, unfortunately, fatal, and here, the parents being poor, the Board conducted the burial, disinfecting, etc., at its own expense. We also had occasion to have a slaughter house removed outside the limits of the village of Sutton. We have to thank the medical profession for their co-operation in reporting cases promptly.

THOMAS B. BENTLEY, M.B.,
Medical Health Officer.

GLAMORGAN.

Secretary's Report.

Last year, just after the last report was sent in, this township was visited by diphtheria for the first time, coming in the family of a person who was from Fenelon Falls on a visit to relations. The house was immediately isolated, and, at the time stated, disinfected by the medical man, with the result that no spread occurred, and the child, the only one affected, recovered.

Two families at the opposite corner of the township also contracted it from another source. They were also promptly isolated, disinfected, and quickly recovered without loss. Since then the township has been visited by no sickness of any kind to call for notice. The population is 491, the death-rate being 8 per 1,000.

We had no Medical Health Officer nor Sanitary Inspector ; the nearest medical man resides twenty miles off, which fact precludes a poor township employing one.

STEPHEN KETTLE,
Secretary.

GLANFORD NORTH.

Secretary's Report.

Very little business has been transacted by the Board during this year, as no complaints have been made as to the existence of anything that would in anywise endanger the health of any person, neither has anything of the kind been observed by any member of the Board. And as there has been no prevailing epidemic (save the measles and mumps in the early part of the season, which was of a very mild form, there having no case proved fatal, together with four cases of typhoid fever), we have reason to be thankful for the kind and merciful providence which has been exercised over us, and for the small amount of labour required of the Board. And as the sanitary condition of the municipality is at present extremely good, and should it remain so, very little labour will be required during the coming year.

THOS. CHOATE,
Secretary.

GLENELG.

Secretary's Report.

I beg leave to report that the Local Board of Health for the township of Glenelg met for the first time in the current year on the 31st day of January, and organized by

the appointment of a chairman and dividing the municipality on the basis of the polling subdivisions for the purpose of sanitary inspection.

I have much pleasure in reporting that not a single case of diphtheria, typhoid fever, or any other contagious or infectious disease, has existed in the municipality during the year.

In 1884 the several physicians practicing within the municipality were furnished with an ample supply of blank forms for reporting cases of contagious diseases. Up to the present time not one case of such disease has been reported, which fact speaks well for the sanitary condition of the municipality.

As no cases of contagious diseases have existed since the formation of the Board, no systematic routine of action has been taken by the Board for the removal of cause, or the isolation of cases; but the Board, being fully organized, is always prepared to take the necessary steps for the removal of cause and the isolation of cases, should such be reported.

J. S. BLACK,
Secretary.

GODERICH.

Chairman's Report.

The Board of Health for said township met at Knox's Hall, Holmesville, on Monday, the 12th December, 1887, and report as follows:

The school houses are all good (ten in number), well ventilated; a full supply of good water for each; the privies kept clean, and no complaint has been made to any member of the Board respecting any of them. There are numerous springs along the Maitland and Bayfield rivers, and through the interior of the township, of which the people avail themselves; but where wells have to be sunk, it is no unusual thing to go sixty feet—good water is then obtained. Last summer's drouth was very trying on the old wells, many of them giving out; these were either sunk deeper or replaced by new ones. There is not any contagious disease in the township. There is still a small percentage of careless people, and it is a difficult matter for the Board to deal with these, as no formal complaint is made by any person as to their unsanitary habits. They are becoming pretty well known to the Board, however, and it would be well for them to take a hint in time.

JOHN COX,
Chairman.

GLOUCESTER.

Secretary's Report.

The sanitary condition of the township of Gloucester during the last year has been very satisfactory to the Local Board; no epidemics nor contagious diseases are known to have existed, with the exception of a few isolated cases of diphtheria among children, for the origin of which we can assign no other reason than some domestic irregularity or neglect beyond the reach of our Sanitary Inspector.

I would also state that no malarial diseases whatever have been reported, or known, to the Local Board, which may be attributed greatly to the excellent Drainage Act of the Ontario Legislature passed in 1883. Our proximity to the city of Ottawa has entailed upon our Sanitary Inspector and the members of the Local Board individually, a very large amount of vigilance in order to prevent the transportation of dead animals, night soil and garbage into the township from the city, to the prevention of which may be attributed a great portion of the freedom from disease which exists in the township, and

to the retention of which in the city may be attributed largely the epidemic of typhoid which exists at the present time.

The inspecting of slaughter houses has taken up a considerable portion of the time of the Inspector, in which he has been under the necessity of bringing several parties before the local justice courts to be summarily dealt with.

In connection with this matter I would beg leave to suggest, that the practice which prevails of converting our rivers and streams generally into common sewers, by the erection of slaughter houses and tanneries along their banks, and using the same as depositories and dump-grounds for offal and offensive matter of every description, is very objectionable, and should be prevented by an Act of the Legislature.

C. BILLINGS,
Secretary.

GREY

Secretary's Report.

In compliance with the Public Health Act, I have the honour to report to you that the sanitary condition of this township for the past year has been excellent. No nuisances of any kind have been reported, and the work of the Board has been light. With the exception of a few cases of measles, the municipality has been entirely free from any disease of a contagious nature.

WILLIAM SPENCE,
Secretary.

GRIMSBY NORTH.

Chairman's Report.

The Local Board of Health for the municipality of the township of North Grimsby for the year 1887, beg leave to report as follows: That the sanitary condition of the municipality has been marked by the almost entire absence of infectious diseases, only two cases having been reported by the medical authorities, that of scarlet fever in different dwellings on the same farm, both of which were promptly placarded, neither case proving fatal, and the disease not communicated to any others in the vicinity.

A. G. MUIR,
Chairman.

GRIMSBY SOUTH.

Medical Health Officer's Report.

During the past year there has not been one case of contagious disease reported to this Board.

There has not been any epidemic of any kind during this time in this municipality, so that it affords me great pleasure to report so favourably on the sanitary condition of the township.

D. McMURCHIE, M.D.,
Medical Health Officer.

GUELPH.

Chairman's Report.

The sanitary condition is satisfactory. Very few cases of infectious disease reported, and these of a mild type of diphtheria. No deaths from this cause reported during the year.

Few complaints were made, and those made were attended to with satisfactory results. Twelve dead animalls were reported during the year, namely 5 horses, 2 dogs, 2 pigs, and 3 sheep. All were removed to the city nuisance ground and properly disposed of, at a cost of sixteen dollars to the township.

During the summer months two horses and a number of cattle died suddenly on the farm occupied by Henry Dawson, on the river Speed. The cases, examined by Dr. Greenside, were pronounced anthrax. Some blood taken from one of these was sent to the Provincial Board of Health, Toronto, for examination, and by them declared to be anthrax. Your Inspector ordered the bodies to be cremated, as the only sure means of destroying the germs. What to do in the matter of the prevention of anthrax is still under the consideration of the Provincial Board and the Minister of Agriculture.

THOMAS McCRAE,
Chairman.

GWILLIMBURY EAST.

Secretary's Report.

A number of cases of contagious diseases have occurred during the year, a large proportion of which were reported by the medical attendants to the Board, and the latter at once caused the necessary public notices to be posted in front of the dwellings infected.

In order to obtain the fullest information possible as to the number of cases occurring during the whole year, a circular was sent by the Secretary of the Board to all practicing physicians in or near the limits of the township asking for a definite statement of all cases attended by each of them and the attendant results. The following returns were made:

Diphtheria, 31 cases, 4 deaths; typhoid, 10 cases, 2 deaths; scarlet fever, 3 cases; parotitis, 16 cases.

All complaints relating to the existence of nuisances were attended to at once.

The present sanitary condition of the township is most satisfactory, there being an almost entire absence of any contagious disease.

A. J. HUGHES,
Secretary.

HAGARTY.

Secretary's Report.

I have to report that there have been no contagious diseases in our municipality for the past year. We had no Medical Health Officer, but we will have an opportunity in the year 1888 of having Dr. James, of Brudenell, as Medical Health Officer, and we will elect our officers immediately, as we are in direct communication with Ottawa City, where the fever is bad.

T. ROCHE,
Secretary.

HALDIMAND.

Medical Health Officer's Report.

In taking this opportunity of submitting for your consideration the health report of the township of Haldimand for past year, I must congratulate you on the result of your labors. In comparison with many municipalities, we have enjoyed remarkable immunity from epidemics of contagious or infectious disease, and although reports from some parts of the township indicate that there is yet work to be done by this Board, nevertheless the hygiene of the municipality as a whole is in a very satisfactory condition.

Occasional cases of a sporadic nature have arisen in some localities, but have, by efficient sanitary laws, been prevented from developing into any serious epidemic.

Two cases of typhoid fever at the "Patterson House" here in the early part of January last, were produced from causes which were evident—proximity of the well of drinking water to the privy and barn together with decomposition of vegetable matter in and about the buildings, were undoubted causes of the disease. These causes have been removed and a perfect sanitary state of affairs adopted.

A case of diphtheria occurring in the house of one Wm. Roberts, Benlocke, near Wicklow, also produced by an unsanitary condition of house and surroundings. Prompt attention to the unhealthy state of affairs prevented any spread of the disease.

Typhoid fever also existed in that locality known as Eddystone, but as far as reported only one case existed, and sufficient cause for producing the disease was found in the decaying animal and vegetable matter, as well as the filthy condition of the yard and locality adjoining the house.

Occasional reports from farther north in the township show that diphtheria and scarlet fever have existed in a mild degree, but much less than during previous years.

From the whole township the reports are decidedly better than for any previous year.

W. W. BOYCE, M.D.,
Medical Health Officer.

HAMILTON.

Chairman's Report.

It is with pleasure that I can report to you that the inhabitants of this municipality have been blessed with good health during the present year, so much so that your Local Board of Health has had no reason to call a meeting of the Board during the year, except the statutory meeting last January.

There has not been one case of contagious disease within the limits of your municipality during the year. The sanitary condition of your township is in a comparatively good position, fair attention having been given to the requirements of the Public Health Act by the people generally.

You will be required at the last meeting of the present council to vote such sums as are deemed necessary by the Local Board for the carrying on of its work.

We did not think it was necessary to appoint a Medical Health Officer and did not require one.

JOHN BOWMAN,
Chairman.

HARVEY.

Secretary's Report.

The general health has been good with the exception of one family. A cousin of theirs who had been ill with diphtheria, came on a visit from Verulam Township adjoining, and the family caught the disease from him.

They lost one child after four days' illness, about three weeks ago and buried it at midnight. The school was closed immediately after it was found out what the disease was.

The medical practitioner reported to the Local Board of Health the existence of diphtheria within our municipality. We immediately posted a notice on the premises, and warned the people to keep away.

Five more of the children were taken down soon after the one that died. The doctor reported yesterday that two of the last named had recovered, and the other three were about out of danger.

The family have been using disinfectants, viz., mercuric chloride, carbolic acid, chloride of lime, sulphur, etc., all along, and the sick ones are kept in the upstairs chamber. We are in hopes that the disease will be stamped out without spreading in the neighborhood.

JAMES S. CAIRNDUFF,
Secretary.

HAWKESBURY WEST.

Medical Health Officer's Report.

Allow me to submit the following report upon the state of the public health for the current year:

The general health of the municipality has been good, with the exception of a few cases of diphtheria in the early months of the year and one case of typhoid fever this fall. The township is now free from contagious diseases. During the summer months there were the usual summer complaints among children, and with the exception of a few cases which proved fatal the type was mild.

In regard to the sanitary condition, the Sanitary Inspector made an inspection last spring and attended to all the complaints during the summer.

D. J. McINTOSH, M.D.,
Medical Health Officer.

HAY.

Medical Health Officer's Report.

In compliance with the requirements of the Public Health Act, I beg leave to lay before you the following report of the general health and sanitary condition of the township of Hay for the year 1887:

In the early part of the year several cases of diphtheria occurred, most of which were of a mild type, but two were sufficiently severe to prove fatal. During the summer and autumn months twelve cases of typhoid fever occurred, seven of which were in the village of Zurich and five among farmers. All the cases of typhoid fever recovered. A few cases of measles were also reported, which presented nothing unusual, and all recovered; so that from these three contagious diseases, so far as I know, only the two deaths above noticed occurred during the year.

In regard to the sanitary condition of the township, I am happy to state that it is much better than formerly. Farmers are building larger and better dwelling houses, and paying more attention to having them properly ventilated. They are also clearing up and draining many swamps, marshes and pond-holes, in most of which stagnant water stood during the greater part of the summer. This, in connection with a thorough system of underdrainage of lands under cultivation, will, I think, in time have a very beneficial effect on the general health of those engaged in agricultural pursuits. There is one custom that I think should be mentioned, and perhaps more protested against than it is, and that is the very common practice of storing large quantities of roots and vegetables in the

cellars of dwelling houses, for it is difficult to think of a more fruitful source of disease than decaying potatoes, apples, cabbages and turnips in a damp and ill-ventilated cellar during the warm months of spring and summer, especially when we consider that many of these cellars are not properly cleaned out or disinfected once in four or five years.

G. BUCHANAN, M.D.,
Medical Health Officer.

HIBBERT.

Secretary's Report.

I have much pleasure in reporting that the township of Hibbert has enjoyed, as far as I know, a perfect immunity from any disease of an epidemic nature so far during the current year. Complaint was made to the Local Board of Health that the premises of a butcher in Dublin village required attention. This was inspected and found in a condition not entirely satisfactory, there being some bones and offal exposed, from which emanated an offensive smell; they were ordered to be removed and buried. In consequence of further complaints from the same quarter, the Medical Health Officer was called upon to inspect the premises, and the remedies suggested by him having been carried into effect, no further trouble was experienced. In the early part of the month of May it came to the knowledge of the Board that the carcasses of some animals were left unburied in a few localities of the township, but on being notified that the law would be put in motion to punish the offending parties, they were promptly put out of sight. Nothing else came under my notice calling for further remark.

T. CARROLL,
Secretary.

HOPE.

Chairman's Report.

The chairman and members of the Local Board of Health beg leave to report that there is no epidemic in the municipality of Hope at present. There was one case of diphtheria in the spring, but the family was isolated and the premises disinfected, thus preventing the spread of the disease. The Inspector reports the several slaughter houses and cheese factories as kept in accordance with the provisions of the Public Health Act, and also in accordance with By-law No. 454 of this municipality. All of which is respectfully submitted.

E. A. POWERS,
Chairman.

HULLETT.

Medical Health Officer's Report.

From the first of November, 1886, to the end of April, 1887, was marked by a great many cases of sore throat, which was of an epidemic character, but in no case, as far as has been ascertained, did it prove fatal. July, August and September we had a few cases of typhoid fever. Sanitary measures were strictly attended to and spread of disease prevented. During October and November measles have been very prevalent through the township, but in no case has death been reported from them.

O. YOUNG, M.D.,
Medical Health Officer.

HUMBERSTONE.

Medical Health Officer's Report.

No deaths have occurred in Humberstone from preventable diseases during the year so far. The number of deaths from all causes this year is small. Some three or four families have been attacked with scarlet fever in a mild form, but still the typical disease, which ended favourably under medical treatment. The isolation and disinfection resorted to prevented their spread. About the same number of cases of diphtheria have been reported to our Board; none of these cases were fatal, they were of a mild type; isolation and disinfection were adopted. This is about the extent of our zymotic diseases this year. Sanitary conditions are improving in our township to some extent. Old stagnant water pools are being got rid of; drainage is doing a good work, and nuisances, as soon as detected by any of the members of our Board, are quickly disposed of. Privy-pits are not allowed to fling their pestiferous stench, as formerly, in the face of the community without remonstrance. Their owners are instructed to disinfect them frequently with lime and kindred agents. The three slaughter houses in the township have been inspected by our officers; they are disinfected and kept clean. We have one vendor of milk who keeps his stables disinfected, feeds his cows on hay and chopped grain; he sells his milk to private citizens. Our people are becoming more alive to sanitary affairs. They do not now think they are a hardship and disconnected with their health and well-being. Our Board hope our people, including themselves, will, as time goes on, acquire more knowledge of the laws of sanitation.

M. F. HANEY, M.D.,
Medical Health Officer.

INNISFIL.

Secretary's Report.

I have to report that the sanitary condition of the municipality of Innisfil is good, so much so that the Medical Health Officer makes no report on account of having nothing to make a report upon.

CHARLES PALLING,
Secretary.

KINCARDINE.

Medical Health Officer's Report.

In presenting this my annual report as Medical Health Officer, I must congratulate you upon the excellent sanitary condition existing in the township of Kincardine. Under the circumstances I did not deem an extended inspection necessary, and therefore made none. In conclusion, I am happy to be able to state that I am not aware of the existence of any remediable unsanitary condition in the township to which I could draw your attention.

THOS. BRADLEY, M.D.,
Medical Health Officer.

KING.

Secretary's Report.

It affords me much pleasure to report that no contagious diseases of any kind have made their appearance during the current year, and the municipality is at present in good

sanitary condition. The services of the Health Inspector were required on two occasions only during the year.

JOSEPH WOOD,
Secretary.

KINGSTON.

Secretary's Report.

As regards the sanitary condition of the township of Kingston I have simply to say that it is good as far as known. The difficulty we had with a party in the early part of the season has been satisfactorily arranged and the nuisance abated. There has been no outbreak of any infectious disease, and have every reason to believe the health of the township of Kingston was never better.

JOHN SIMPSON,
Secretary.

KINLOSS.

Medical Health Officer's Report.

I have the honour to inform you that during the year just ended your township has been in a comparatively healthy condition. With the exception of a very mild form of measles, which from reports has appeared very general throughout the township, I have heard of no other infectious diseases. I would call your attention to the fact, however, that some of the schools in the township are very much overcrowded and would recommend that the several boards of trustees be requested to provide a better system of ventilation, and that the surroundings of the school, with their out-houses, be put in a proper sanitary condition.

The removal of the slaughter house at the west of the village of Lucknow, by order of the Board, was the means of removing a public nuisance and a probable cause of typhoid fever.

The Board certainly deserve the highest praise and the thanks of the residents of the township, for should an epidemic of any infectious or contagious disease appear among them they are now in a position to prevent, as far as possible, the spread of such disease.

JNO. S. TENNANT, M.D.,
Medical Health Officer.

LANCASTER.

Secretary's Report.

The Local Board of Health of the township of Lancaster, in session assembled this day, beg leave to submit the following annual report as to the sanitary condition of this township for the year 1887 :—

With the exception of a severe outbreak of pneumonia last spring the township has been in a very healthy condition. Very little Canadian cholera, no typhoid fever nor other infectious diseases, with perhaps the exception of a few cases of diphtheria which occurred during the last month, and these cases, we have good reason to believe were contracted in a neighbouring township.

A. E. McRAE,
Secretary.

LEEDS AND LANSDOWNE (REAR OF).

Secretary's Report.

As there was no Local Board appointed this year until about two weeks ago, I have no tabulated reports to make, nor have I received any from the Chairman or Medical Health Officer.

We have had diphtheria of a very mild type in one family here about two weeks ago; all attacked are convalescent. The disease has not become epidemic, but care was taken that it should, if possible, be confined to the one house. The Board authorized me to ask for blanks to supply to physicians, also for blanks to make reports. I have not heard of any measles, typhoid fever or other contagious diseases beyond what I have reported.

JAMES BERNEY,
Secretary.

LOBO.

Secretary's Report.

The Board met and organized and appointed Alex. Campbell, Chairman. The Board attended to any matter that came under their notice. There were no cases of any dangerous contagious diseases this year in our municipality. The work of the Board has been very light this year. The general sanitary condition of the township is very good.

E. R. BARCLAY,
Secretary.

LOCHIEL.

Medical Health Officer's Report.

In submitting my report to the Board of Health upon the sanitary condition of the township, I cannot refrain from expressing congratulations for the immunity from contagious and infectious diseases enjoyed for the past year.

The only disease of the above nature which has existed within the township since the organization of the present Board of Health, is diphtheria, and of this disease seven cases and one death occurred.

As you will see, we have enjoyed almost entire freedom from those dread diseases which usually create such havoc in a country.

In order that this freedom from disease, which owe their origin to the accumulation of filth of any nature in which decomposition may occur, may be maintained, I would recommend that before the cheese season will open next year (1888), some measures be adopted by the proprietors of factories for the prevention of cesspools beneath the factory floors, and that beneath two or more cheese factories in the township, where there are now cellars partially filled with whey and such refuse, something will be done to remove the same before the frost disappears next spring, and the said cellars be subjected to a thorough disinfection.

To the Board of Health which will be in existence then, I heartily recommend that this very important matter will be attended to, and thereby remove what might cause a serious epidemic.

L. McMILLAN, M.D.,
Medical Health Officer.

LONDON.

Medical Health Officer's Report.

During the term of my office since Febraury 7th, there have been thirty-nine cases of diphtheria and only three deaths. Nine of the cases were traced to unsanitary conditions for their origin; but as to the remainder nothing definite regarding cause is known. There have been some other cases attended by other practitioners and not reported, but we are now insisting on the reporting of all cases and placarding all houses in which is found the disease.

The general sanitary conditions of the township are good. For prevention of spread of disease we use isolation and disinfection, and are doing what we can to render these efficient in stamping it out.

GEO. SHOULTS, M.D.,
Medical Health Officer.

LUTHER WEST.

Secretary's Report.

I beg to report that the health of this township has been so good that there has been no necessity for calling the members of the Board together. There was but one case of typhoid fever, and was contracted by a person who lived almost next door to the Medical Health Officer, and was attended to by him. I saw the person frequently myself and arranged with the Medical Officer to thoroughly disinfect the house. No other person in the house or in the little village took the disease. The patient is fully recovered.

JAMES McLACHAN,
Secretary.

MAIDSTONE.

Medical Health Officer's Report.

In compliance with the requirements of the Public Health Act, I have the honour to lay before you my annual report.

The sanitary condition is good, and the Board is prepared to combat contagious diseases at the earliest invasion. Seven cases of diphtheria with one death, and fourteen cases of measles with no deaths, include all the contagious diseases for the year.

Zymotic diseases have been much less prevalent than formerly, owing in part, I think, to greatly improved drainage.

S. RICHARDSON, M.D.,
Medical Health Officer.

MALDEN.

Medical Health Officer's Report.

I beg leave to present my annual report to the Board of Health for this year. Although a good deal of sickness has prevailed during the year, yet it has not been so generally extended as in former years, and this is, no doubt, owing to the salutory efforts put forth by the Board of Health.

Of the zymotic diseases, I may say an epidemic of measles prevailed somewhat extensively the early part of the year, resulting generally in recovery.

Three cases of diphtheria of a malignant type. The origin could not be traced, yet, by carrying out the principles of notification, isolation and disinfection, it was prevented spreading to any other family.

When we remember that Asiatic cholera has prevailed with such terrible fatality in the Mediterranean ports last summer, and even this fall was brought to New York, so it is impossible to foreshadow what another summer may bring forth; hence the old motto, and a very true one, which should be a motto for every Board of Health, "An ounce of preventative is worth a pound of cure." I would strongly advise the Board, this spring, to thoroughly have all wells and outhouses in a perfect sanitary condition.

T. JAMES PARK, M.D.,
Medical Health Officer.

MARKHAM.

Secretary's Report.

The Board of Health this year have nothing to report further than we met and organized, with the Reeve of the township as chairman. I have had some five or six cases of diphtheria reported, which were at once isolated by the medical men in attendance, and did not spread. At present we have no cases of any kind of diseases that are contagious, and so far have not had a meeting of the Board since the opening meeting in January last.

JOHN STEPHENSON,
Secretary.

MARIPOSA.

Medical Health Officer's Report.

The past year has been marked by some improvement in sanitary affairs in this municipality. The report of the Inspector shows that he has been doing good work, in keeping up the standard in all matters relating to public health regulations.

He has made 190 domiciliary visits, besides inspecting our public schools, cheese factories, and slaughter houses, and has had, as far as possible, the Public Health Act carried out.

I have advised him to see that in all cases where new privies are needed or are about to be built, to discredit as much as possible the old plan of building over an earth vault, and recommending or insisting on the use of the dry earth system. The Inspector reports a number of privies not more than twenty feet from wells now in use. This state of things, I think, should not be permitted, as some of the excreta is sure to find its way into and contaminate the water.

The Inspector also reports considerable negligence in the matter of water supply, the people, in a great many instances, not appreciating the importance of being positive as to the purity of the water used for drinking and household purposes. He finds it necessary, very often, to use a great deal of persuasion, sometimes of an urgent character, in order to secure any response to his authority for having wells cleaned.

The Inspector also makes complaint of the inefficiency of the cellar drainage of many houses in the village of Oakville; he states that the main drain has no outlet—a queer drain—being dug for a certain distance and ending in a blind extremity. I would say that such a condition was as bad, or perhaps worse, than no drainage at all; would not water, backed up in those cellars and standing still in those drains, be a splendid nidus for the typhoid fever germ, or the special virus of diphtheria; by all means that drain should be completed.

During the year there has been reported six cases of typhoid fever, five of which recovered; five cases of diphtheria, four recovered; three cases of scarlet fever, all recovered.

According to the above showing the efficiency and usefulness of our Local Board of Health is evident, inasmuch as having the germs of those three very contagious diseases among us, yet, by proper precautions and sanitary regulations, they have been kept within those small dimensions. The above results are the more conclusive when we remember the very dry season we have had, with its consequent scarce and impure water suppiy, which would of necessity aggravate many of the causes of disease.

A. E. VROOMAN, M.D.,
Medical Health Officer.

MARYSBURGH NORTH.

Chairman's Report.

We, the members of the Local Board of Health for the township of North Marysburgh, beg leave to submit our annual report, as follows:—

We are pleased to report that the township of North Marysburgh is free from all contagious diseases, excepting a few cases of measles recently reported, and the sanitary condition is considered as satisfactory, as far as we can ascertain.

Owing to the absence of the Medical Health Officer, and from the fact that his professional services has not been required during the year, we have no report to send from him.

B. H. HARRISON,
Chairman.

MELANCTHON.

Secretary's Report.

The Board of Health for the township of Melancthon beg leave to report that the general health of the township for the past year has been good, with the exception of about ten isolated cases of diphtheria; three of them were fatal. There was one imported case of typhoid fever, which terminated fatally. I am not aware of any case of scarlet fever, mumps, or other contagious disease, during the year.

JAMES BROWN,
Secretary.

METCALFE.

Medical Health Officer's Report.

I have much pleasure in submitting to you my annual report as Medical Health Officer for the township of Metcalfe for the year 1887. I have to congratulate you on the sanitary condition of the township in general. It is a matter of thankfulness that during the past year our township has not been visited by any widespread cause of mortality or sickness, beyond the ordinary causes that are at work from year to year, over which we have no control. The sanitary condition of the township has been during the year in such an excellent shape as to render a lengthy report from me quite unnecessary. In diseases of an infectious nature we have had only a very few cases of whooping cough, scarlet fever, and a very mild form of diphtheria, all of which recovered.

A. NIXON, M.D.,
Medical Health Officer.

MIDDLETON.

Chairman's Report.

I beg leave herewith to report to you upon the sanitary condition of the township during the past year.

There has been very little to which the Board of Health of the township has been referred.

There have been about nine cases of diphtheria brought to the notice of the Board of Health, five of which proved fatal. Every precaution has been observed in checking the disease, and at present no symptom of any serious disease is known to exist.

ROGER CRYSLER,
Chairman.

[The report of the Medical Health Officer is witheld owing to its being simply a statement as to the correctness of the Chairman's report, as given above.—ED. REPORTS.]

MINTO.

Medical Health Officer's Report.

During the past year no report has been made to us by any practitioner of the presence of any infectious or contagious disease within the municipality, and, so far as I know, there has been nothing calling for special action on the part of the Board. I visited the different cheese factories and invariably found them kept clean, and, as much as possible, free from disagreeable smells. The piggeries in connection with them have been, and many are yet, the cause of complaint. I do not see how the recommendations of the Provincial Board of Health regarding the registration of those supplying milk to parties can be carried out without unnecessary expense, which I do not feel like advising the Board to incur.

A. HARVEY, M.D.,
Medical Health Officer.

MOORE.

Secretary's Report.

In compliance with the Public Health Act, 1884, I beg to report that at the first meeting of the municipal council of the township of Moore for the present year a Local Board of Health was appointed, with Dr. Wilkinson, of Mooretown, as Medical Health Officer.

As this is a rural municipality, contagious or infectious diseases do not spread so rapidly as when the population is denser, and, therefore, comparative immunity from such diseases has been enjoyed during the year. Still, several fatal cases of diphtheria and typhoid fever have occurred, and some cases of measles and scarlet fever have been reported by medical practitioners in the township. Seeing that a virulent case of diphtheria or small pox is more to be dreaded in a community than the prowling dynamiter, a wide field for watchfulness and usefulness is here offered for the proper energies of Boards of Health in promptly adopting precautionary measures to check the spread of such diseases, and, if possible, ascertain their original or exciting causes.

It is to be feared, however, that Local Boards of Health are generally not more attentive to the duties devolving on them in this respect than is necessary, and that this Board is no exception to the general rule.

JAMES WATSON,
Secretary.

MORNINGTON.

Secretary's Report.

The Board met on the 14th of February, when the following members were present: Wm. B. Freeborn, Reeve; J. Watson, Clerk; Jacob Kollmann and James Boyd. Mr. Kollmann was appointed chairman. The nuisance at the cheese factory on the seventh concession was brought up and discussed and laid over to the next meeting. The nuisance was abated, and no more action taken in the matter. In regard to sanitary work, there has nothing been done during the year but the discussion of the above question, and of the sanitary condition of the township the Board knows very little, as the medical practitioners have never made any returns of infectious or contagious diseases.

The Board met again on the 5th of December, when the members were all present. The Medical Health Officer, Dr. Johnson, reported in the early part of the year that there were several cases of malarial fever, besides a few cases of diphtheria later on, which were confined to the families with whom the disease originated, by the judicious procedure of isolation, disinfecting, etc. Thus the disease was stamped out.

JOHN WATSON,
Secretary.

MORRISON.

Secretary's Report.

In accordance with the statute, I beg to present the annual report of the Local Board of Health of the municipality of Morrison, and say, that the health of the township has been good throughout the past year; for instance, during the last six months only three deaths have been registered.

There have been no symptoms of epidemics, even of infantile diseases, such as whooping cough, measles, or scarlatina; and, as stated in the chairman's report to the township council, the individual members of the Board are keeping watchful and vigilant and are thoroughly impressed with the importance of the duties connected with their office.

THOMAS WHYTE,
Secretary.

MCKELLAR.

Medical Health Officer's Report.

In accordance with the provisions of the Public Health Act, I beg to present my annual report.

It is thought by some that because we do not live in a town where, on account of the assemblage of a large number of people within a limited space, the consequent difficulty in disposing of sewage is more apt to breed disease, and that the duty of a Board of Health in a village is of small consequence. But I would desire to remind you that the laws of nature cannot be violated with impunity any more in a village than in a densely populated town, and that the lives of villagers are of just as much value as those of townsfolk. Epidemics of diphtheria and typhoid have often ravaged country places. I have therefore felt it my duty to be as particular here when an unhealthy condition exists, as when I was Medical Health Officer in a town.

The Inspector and myself have endeavored to carry out the provisions of the Act with as little inconvenience as possible to the ratepayers, and, except in one instance, have found their common sense has caused them readily to accept our suggestions and willingly to carry them out.

In one instance, however, where a privy was situated upon the lake shore, the proprietor was inaccessible to moral suasion, and I was compelled reluctantly to enforce the law or to resign my office. I did the former.

There is now no offensive drainage into the lake. Two or three surface drains have been made at some expense to the owners, and, as upon examination I have found the contents harmless to health, I have not deemed it necessary to interfere with them.

With regard to the bodies of dead animals which have been thrown aside during the winter and become offensive in the spring, I have ordered immediate burial as soon as the nuisance was discovered.

I am glad to inform the Board that, to my knowledge, there has not been during the year within this locality a single case of infectious disease.

I am well satisfied with the assistance given me by the Inspector, Mr. Spencer.

BRINSLEY M. WALTON, M.D.,
Medical Health Officer.

McKillop.

Medical Health Officer's Report.

The honour of submitting an annual report devolves upon me for the year 1887.

During the year the board held three meetings, and although the executive work was not important, still you have paved the way for future sanitary usefulness.

As you are aware the only nuisance of any moment that engaged the attention of the board was that of Winstrop, and the deep interest taken in it leaves no doubt of its early removal. The early part of the year was marked by an outbreak of measles, which spread over a considerable portion of the municipality, one death reported.

In May an outbreak of scarlet fever occurred in the eastern part of the township, which necessitated the closing of the school in that section for a limited time.

The germs of the disease were brought from a distance. I regret to report that the first case was not properly diagnosed, as the physician who attended pronounced it "an unique case of rheumatism with rash." The disease spread to five families, attacking twenty children in all; one death occurred from a complication. In July, August and September we had numerous cases of dysentery and a few isolated cases of typhoid. During the same period two cases of diphtheria were reported, one death.

Thus we see that our municipality is not exempt from filth generating diseases. However, considering the lengthened period of dry and hot weather, we have every reason to be grateful for the low death-rate of the municipality.

Gentlemen, your work as a sanitary board is a noble one, and will in a few years be more appreciated than it is at present; for in the words of Sir Wm. Jenner, "to prevent disease is the highest and most important aim of the science and art of medicine."

Judging from the progress that sanitary science has made in the last few years, I can safely predict that in the near future zymotic diseases in Canada will be rare.

WM. HANOVER, M.D.,
Medical Health Officer.

McLean.

Secretary's Report.

It is with unfeigned pleasure that I have to announce that the sanitary condition of this municipality is superior to anything that can be imagined by one nurtured in a city.

No vegetable or animal matter is allowed to decompose and exhale its noxious gas, for such is forwith buried or used to enrich the soil of the vegetable garden.

The consequence is, disease is a rarity in this salubrious region.

To be brief, our sanitary arrangements are perfect. May they continue so.

ANDREW SLEMMONT,
Secretary.

McNab.

Secretary's Report.

There has been no need of enforcing any sanitary measures during the year, as the sanitary condition of this municipality so far as known or reported to the board is excellent. There has been no cases of contagious diseases.

I beg to state that we have no Medical Health Officer engaged, for our local board is of the opinion that at the present time and under the present circumstances a health officer is not required.

J. D. McNAB,
Secretary.

Neebing.

Medical Health Officer's Report.

I have the honour to present you with my first annual report as Medical Health Officer of the Town of Fort William, and I can assure you that it is a matter of congratulation that Fort William, acting upon the recommendation of the Provincial Board of Health, has established a local board to look after the sanitary interests of the municipality.

Former experience has taught the value of health committees for the prevention of the spread of contagious diseases, and if this board shows due vigilance and enthusiasm it cannot but stimulate confidence and emulation on the part of the people who are benefited. In rural districts we do not have to face in a great degree the baneful effects of deficient sewerage and want of good drinking water, but in the disposal of garbage, etc., we are subjected to the same influences as people in cities and large towns.

In the erection and arrangement of rural dwellings, I beg to point out that more attention should be paid to the following points:—

1. Better drainage from cellars and foundations.

2. Greater distance between dwellings and privies.

3. If there must be a garbage pile, to have it at a safe distance from dwellings and removed at stated intervals.

In the matter of prevention of the spread of contagious diseases an important factor is the power of masters in schools, and I would recommend that the attention of teachers be called to the school law which enacts that "the masters of every school shall see that no pupil is admitted to or continues in any of the schools who is affected with or has been exposed to any contagious disease, until all danger of contagion from such pupil or from the disease or exposure shall have passed away, as certified in writing by a medical man."

In rural places no one perhaps is more cognizant of the prevalence of disease than school teachers, and by their co-operation (which is compulsory) much may be done to prevent their spread.

I am pleased to state that very few cases of contagious or infectious diseases have been reported during my term of office, which goes to prove either the excellent sanitary condition of the municipality or gross ngeligence on the part of those who should report, the former being evidently the factor.

A few cases of scabies and scarlet fever occurred under my own observation, which were isolated cases. Being of a mild type, no deaths occurred.

In one or two cases only have we been called upon to insist that sanitary matters should be improved. One, the slaughter-house on the bank of the Kaministiquia river, where slaughtering has been done, the effete matter runs down the bank into the river and the water is used afterwards for drinking purposes. The slaughter-house was ordered to be closed.

W. H. HAMILTON, M.D.,
Medical Health Officer.

NEPEAN.

Medical Health Officer's Report.

In compliance with the requirements of the Public Health Act, I beg to submit the following report of the sanitary condition of the Township of Nepean for the current year : It was a matter for congratulation, that during the fore part of my term of office—which began in June last—the township was in a remarkably healthy condition, there being no epidemics or widespread cases of sickness or mortality.

I regret, however, to have to report a much less favourable state of affairs during the latter half. In addition to the usual number of ordinary cases which we generally find prevalent during the summer and autumn, we have had a number of cases of a more serious nature.

In the month of September, eight cases of diphtheria occurred in the Village of Merivale, one of which proved fatal. On enquiring it was found that the disease made its appearance in two families simultaneously. The source of infection cannot be definitely traced, although there are strong indications that both families contracted the disease while attending Barnum's circus in Ottawa a few days (3 or 4) previously.

With the exception of a third family, a number of which became infected before the nature of the malady was made known to them by a physician, it was strictly confined to the two houses, by having them isolated and the houses afterwards thoroughly disinfected and fumigated.

From my own knowledge, and from such information as I am enabled to obtain from other city physicians, I am satisfied that the number of typhoid fever cases (in the suburbs of the City of Ottawa particularly), has been large. Some of them have been very severe and of long duration, although the actual number of deaths has been small.

Active measures have been taken in the matter of nuisances, and as a result the glue factory, which has long been a source of annoyance and very great danger to the lives of the inhabitants of Rochesterville, has, after considerable trouble, been compelled to cease working. Our attention at the present time is directed towards abating the nuisance created by the depositing of city night-soil upon the farm of Mr. Holland.

After a thorough inspection accompanied by the health officer of the locality, and adapting the method employed in disposing of the material, I at once authorized Mr. Gordon to notify the offending parties and have the nuisance immediately stopped. What the outcome of our efforts is remains yet to be seen. However I have every hope that we shall experience little trouble in the discharge of our duty, and that before many days have elapsed the nuisance will no longer exist.

W. FENTON GRAHAM, M.D.,
Medical Health Officer.

NIAGARA.

Secretary's Report.

Our township Board have never appointed either a Medical Health Officer or Sanitary Inspector, consequently I cannot send a report from either of them.

This municipality has had only one case of typhoid fever that I have heard of since the year commenced, and that did not originate here, the party having contracted it while away on a visit and came home ill, but soon recovered after coming home. We have had no other contagious diseases that I have heard of and the health of the township has been, and is at present, remarkably good—so much so that our Board of Health have not thought it necessary to hold a meeting this year.

C. FISHER,
Secretary.

NICHOL.

Chairman's Report.

In conformity with the provisions of Section 24 of Health Act, 1884, the following report of the sanitary condition, etc., of the aforesaid municipality of Nichol for the year is hereby submitted :—

The Board have the satisfaction of reporting that the general health of the community in this township during the year now nearly ended has been very good. No epidemic of any kind has been prevalent, only two cases of typhoid fever and ten cases of diphtheria so far as known having occurred, and none proved fatal. The cases of diphtheria were confined entirely to the "House of Industry" for the county, which is located in this municipality. Measures were immediately taken to prevent the spread of the disease which proved successful, so that it has some time ago entirely disappeared.

JOHN R. WISSLER,
Chairman.

NISSOURI EAST.

Secretary's Report.

We have to notice that much more than the usual amount of sickness has been prevalent amongst us during the year just closed.

About the end of last winter there were several cases of diphtheria, two of which resulted in death, but it did not spread beyond the families in which it was first developed, as our people are very careful to avoid the spread of contagious sickness by refraining from visiting, and by keeping their children out of school when there is any danger.

About Easter we had a number of cases of measles, some of which were brought from a distance, and I believe that all our sick were brought safely through.

In the fall of the year several cases of typhoid fever were amongst us of which at least one was imported, and one was directly traceable to unsanitary surroundings. I am glad to say that the parties attacked have all been restored to health, and our Local Board of Health have taken vigorous and efficient measures to prevent the recurrence of danger from the last mentioned cause.

I have much pleasure in being able to state that our present sanitary condition is quite satisfactory.

CHAS. R. COMMANDER,
Secretary.

NISSOURI WEST.

Medical Health Officer's Report.

In presenting this my annual report it affords me much pleasure to be able to state that the sanitary condition of this municipality (West Nissouri) is very satisfactory indeed. Our municipality is chiefly rural; drainage generally is fair; we have an abundance of pure water, and our people are nearly all well-to-do. To these circumstances we attribute our immunity from a serious epidemic of any disease.

The northern part of the township was visited by an epidemic of measles last spring, but the disease was of a mild type and no deaths occurred. A few cases of diphtheria and typhoid fever and one case of scarlet fever were reported, but with complete isolation and efficient disinfection the diseases were confined to the persons primarily attacked. Only one case of diphtheria proved fatal. The typhoid and scarlet fever cases all recovered.

W. J. WEEKES, M.D.,
Medical Health Officer.

NORWICH NORTH

Chairman's Report.

The Secretary was instructed to have placards printed to supply physicians to put on the houses where any contagious diseases were reported, which I believe was complied with.

In the latter part of the year I received a letter from a gentleman on Otter Creek, east of the village of Norwich, stating that the proprietor of the woollen mill in Norwich had taken no steps to abate the nuisance of running the dye-stuff into the creek. I called a meeting of the Board, and at the meeting of the Board a resolution was passed instructing the Secretary of the Board of Health to give the proprietor of said woollen mill a notice to abate the nuisance by the middle of September of the present year, and if not abated by the said time to proceed against him according to law on the 17th of said month of September. I received a letter from the said proprietor informing me that he was preparing a tank for filtering dye-stuffs, saying the work would be completed with all rapidity.

S. S. BURTIS,
Chairman.

NOTTAWASAGA.

Secretary's Report.

The sanitary condition of this township is good. No contagious diseases visited us during the year. The only slaughter house in the township is within the police village of Creemore, and our Board has no control over it or over any disease which may occur in said police village.

The Reeve of the township is our Medical Health Officer and he has made no report of any description to the Board during the year, verbal or otherwise. Our Board is composed of four members of the council and the clerk, and I would beg to suggest as an amendment to the Public Health Act, that sub-section 2 of section 12 should be amended by adding after the word ratepayers, "not members of the council."

ANGUS BELL,
Secretary.

ONONDAGA.

Medical Health Officer's Report.

I beg to present my annual report in accordance with the provisions of the Public Health Act, and in doing so it gives me pleasure to be able to state that during the past year the sanitary condition has been good.

No epidemic of contagious or infectious disease has visited us. Malaria—like the poor—we have always with us, and it will continue to be so until the obstructions in the Grand River are removed, thus securing a free outlet not only to the waters of the river, but also to those of its affluents. I would respectfully suggest that the municipal council should send an earnest appeal to the Government to have the dam at Caledonia removed as soon as possible. If this work would be done during cold weather it would be better, as the malaria arising from the moving of the soil would be neutralized.

R. H. DEE, M.D.,
Medical Health Officer.

OPS.

Medical Health Officer's Report.

In accordance with the requirements of the Statute, I beg to report as follows :—

The sanitary condition of the township of Ops during the past year has been excellent, no epidemic or contagious disease, and comparatively little general sickness having shewn itself.

Under these circumstances the duties of your Medical Health Officer have been merely nominal, and my report is necessarily a brief one.

THOMAS W. POOLE, M.D.,
Medical Health Officer.

ORILLIA, ETC.

Secretary's Report.

I have received no report of any case of infectious disease having occurred in our municipality during the past season, and the duties of our Sanitary Inspectors have been very light.

As the Medical Health Officer has made no report, having, as far as I know, no duties to perform, I cannot include it with this, as required by the Act.

As this has been a season in which many localities have suffered severely from sickness, I beg to congratulate you on its absence from our municipality, and hope that the duties of our successors in office may be as light as ours have been.

ALBERT FOWLER,
Secretary.

OXFORD EAST.

Medical Health Officer's Report.

In compliance with the requirements of the law, as Medical Health Officer of your municipality, I submit to you my report.

I congratulate you in maintaining the usefulness of your Board as a means of disseminating a more general diffusion of sanitary knowledge, a matter which I regard as among the most necessary of the present age; one of the most important reforms of the age is that of sanitation.

Some of our most formidable of acute diseases, such as diphtheria, erysipelas and typhoid fever, have their primary cause in the decomposition and fermentation of sewage—diseases that are preventable and should not exist. Water contaminated with sewage, or the air constantly vitiated from emanations in old privy vaults and elsewhere, are in any event the common cause of a depression of the general health and the diseases above referred to. I have therefore recommended, so far as I have had the opportunity, the sanitary measures of relief.

I have visited several school sections in the municipality for the purpose of observing the system of sewerage in vogue, and for ascertaining the condition of the water.

In all instances the water supply is from wells; the samples so far tested are positively bad in many instances.

I would therefore advise a thorough cleansing at once of all those wells suspected, and their careful protection afterwards.

I find some of the vaults in an unhealthy state and would urgently recommend the immediate adoption of the dry earth system. This I believe to be our only true remedy. It renders the excreta inert and, therefore, harmless, and is also comparatively inexpensive. I would suggest also that some regulation be adopted to make the plan universal, and specific instruction issued accordingly.

Perhaps it would be well to make the system imperative, as the Board has power to do so.

The factories and dairies and the milk supply should be inspected in their season, and reported to the Provincial Board of Health.

There has been no exceptional or undue sickness during the last year, and the death rate in the municipality has been small.

J. H. THRALL, M.D.,
Medical Health Officer.

Oxford North.

Medical Health Officer's Report.

This section of the country has been visited by three epidemics since our last annual report, viz., one of measles, one of whooping-cough, and one of diphtheria, while scarlatina and typhoid fever have been endemic among us.

There have been eight cases of typhoid fever, and, with two exceptions, were of a mild type—one death.

There have been eight cases of scarlet fever, all mild and not followed by sequelæ.

I am unable to give even an estimate of the number of cases of measles and whooping-cough, but the number attacked was very great, including nearly every individual child and adult who had not previously had those diseases.

Diphtheria began to be epidemic among us in November of 1886, as will be remembered on referring to our last report, and continued to exist in an epidemic form nearly all winter, and since then the locality has never, for any length of time, been free from endemic cases of the disease, and though many severe cases occurred, yet none were of the malignant type which were reported in various parts of the country. There were forty-five cases in all, six resulting fatally. three being in my own practice—all the result of catching cold after a very mild attack of diphtheria, which was not recognized as diphtheria at all by the parents until too late.

A very noticeable feature of those epidemics was that though there were so many cases, I am unaware of a single case being followed by the usual sequelæ in virulent diphtheria, which result I attribute largely to the spread of accurate knowledge regarding

the nursing and care of the diseased, and the more comfortable homes and sick rooms which are rapidly supplanting the houses of former days, together with the growing habit of employing medical aid even in mild cases.

JNO. McWILLIAM, M.B.,
Medical Health Officer.

OXFORD WEST.

Medical Health Officer's Report.

I have the honour to report that the sanitary condition of the township of West Oxford has been good. There have been a few sporadic cases of malarial and typhoid fevers and diphtheria, but nothing approaching an epidemic in this or other class of diseases which have their origin in preventable causes.

This showing is the more favorable from the fact that after an exceptionally dry summer it is the zymotic or contagious diseases that mostly prevail.

I would recommend to the Board that an effort be made to introduce the dry earth closet into more general use, in order that one of the principal agents for the spread of diseases of the above nature—viz., the contamination of wells from sewage—may be removed.

J. W. BROWN, M.D.,
Medical Health Officer.

PELHAM.

Secretary's Report.

The Board held its first meeting 30th May, 1887, the members being all present.

D. J. Stone reported that the school in section No. 4, Pelham, was closed on account of diphtheria in the neighbourhood.

Dr. Comfort, Medical Health Officer, said that Dr. Birdsall had reported to him a case of diphtheria in the same neighbourhood, in the family of Jos. Fisher.

This was the only meeting held during the year.

Only one of the four doctors residing in this municipality made any return of infectious diseases to the Local Board, and yet two of the members of our Local Board are old practising physicians.

With reference to your circular of 28th Nov., *re* milk supply, I may say there are no milk vendors in this municipality.

JUDSON C. CROW,
Secretary.

PEMRROKE.

Chairman's Report.

The Local Board of Health for the township of Pembroke reports as follows for the year 1887:—

We have had four cases of diphtheria in our municipality, one of which terminated fatally.

We have had two cases of typhoid. None fatal.

There have been a few cases of death from typhoid fever in the hospital of parties who have not resided in the municipality.

Upon the whole, our municipality has been remarkably free from contagious or infectious diseases.

A. T. WHITE,
Chairman.

PILKINGTON.

Secretary's Report.

The Local Board of Health for the township of Pilkington, county of Wellington beg leave to inform you that there has been no epidemic disease of any kind in this township during the past year. The Board has had only one meeting during the past year, and as the public health was good no medical health officer was appointed.

ROBERT CROMAR,
Secretary.

PITTSBURG.

Chairman's Report.

The Board of Health of the municipality of the township of Pittsburg, beg leave to report that the sanitary condition of this municipality for the past year has been excellent and now is in a healthy state. The Board have taken every precaution to have cleanliness strictly observed, and have had no difficulty in seeing the requirements of the Public Health Act carried out.

W. HUTTON,
Chairman.

PLANTAGENET SOUTH.

Secretary's Report.

There were only two occasions during the past year in which we had to direct our Medical Health Officer, Dr. Pattee, to inspect premises reported having diphtheria, both of which reports after investigation proved false.

No sickness of a contagious nature as far as known exists in the municipality, and the township is in a very good sanitary condition, which the Local Board of Health will use their powers to maintain.

A. McLEAN,
Secretary.

PORTLAND.

Chairman's Report.

I beg leave to report that no epidemic of contagious or infectious disease has existed during the year, nor has any complaint been preferred to us touching any violation of sanitary regulations. This municipality is believed to be in an excellent sanitary condition.

R. THOMPSON,
Chairman.

PROTON.

Chairman's Report.

I have the honour to forward the annual report of the Local Board of Health, township of Proton. The members met for organization on the 24th day of February, at the village of Hopeville.

Dr. James McWilliam, Dundalk, medical health officer, the other members, as health inspectors in the several township divisions were present.

The Board have not been called upon to take action in enforcing the Public Health Act, no cases of infectious or contagious disease being reported during the year; the seasons have been unusually dry but healthy, and from the altitude of the township we have not suffered from excessive heat or drouth apparently. Taken altogether, I am thankful to be enabled to report the passing year to be a good one as regards the health of our people.

SAMUEL ROGERS,
Chairman.

RADCLIFFE.

Secretary's Report.

At the beginning of the year members of a Local Board of Health were appointed by the Municipal Council, also a Medical Health Officer without salary was nominated.

The Local Board have held no meetings.

During the current year there have been no infectious or contagious diseases in the municipality. Indeed, so healthy has been the state of the people that no deaths from any cause have been registered during the year. There are no cheese factories, public dairies or milk vendors in the municipality.

The Medical Health Officer reports that the sanitary condition of the municipality is good.

JOHN E. H. MILLER,
Secretary.

RALEIGH.

Medical Health Officer's Report.

In presenting my report for the present year I beg leave to compliment the Board on the excellent sanitary condition of the township.

It is my duty to report that during the present year your municipality has been exempt from any widespread outbreak of disease of an epidemic nature. There have been four cases of typhoid fever in the house occupied at present by Mr. David Thorp; these terminated with three recoveries and one death. These cases, I believe, are due to the unsanitary condition of the building in which they live. I would recommend the Board to see that this building is closed or put in a sanitary condition. A few other cases of typhoid have broken out in your township, but the disease was contracted in the town of Chatham. There have been a few mild cases of scarlet fever; no deaths.

There have also been a few cases of diphtheria, but only one death.

A good many cases of a very light form of whooping-cough have occurred.

A great many cases of malaria have existed in your township this present year. This, I think, is due to the bad water supply. I notice particularly a great many cases arise in connection with our large stave mills, due, no doubt, to the stagnant water and decomposing of vegetable matter.

In conclusion, I would call your attention to the following matters :—

See that all cases of an epidemic nature be reported to your Board by the attending physicians, so that the Board may take the proper measures to prevent the spread of the same.

Make it compulsory for school trustees to provide a good water supply ; have the school wells cleaned out at least once a year.

Have it compulsory for the trustees to have the privies disinfected and kept in a sanitary condition.

Have it compulsory that trustees should admit no child to school that has been suffering from any contagious disease without a physician's certificate.

*I am fully convinced that if your Board are legally entitled to do this—and in doing so you will be doing that which will have these suggestions carried out—it would be a benefit to the inhabitants of your municipality, and would promote the ends we have in view, *the furtherance of public health.*

JOHN CHAS. BELL, M.D.,
Medical Health Officer.

ROCHESTER.

Medical Health Officer's Report.

Since last report but little has occurred of medical interest in your district, as there was only one case of diphtheria and a few cases of typhoid fever. The past and present high state of health is altogether very remarkable.

Personally, I might claim to join in the general doleful cry, "Ah, yes, indeed, trade is very slack."

In closing, I congratulate the Board upon the good sanitary condition of the township.

U. GABOURY, M.D.,
Medical Health Officer.

ROLPH, BUCHANAN AND WYLIE.

Secretary's Report.

I beg to report that there were no contagious diseases in this municipality of Rolph, Buchanan and Wylie for the year 1887. There has been no sickness of any kind worthy of note.

FLORENCE McCARTHY,
Secretary.

ST. JOSEPH.

Secretary's Report.

A meeting of the members of the Board of Health of the municipality of St. Joseph was held at the residence of Dr. Ross, Richard's Landing, on December 29.

Dr. Ross reports a few cases of a very mild type of measles, so mild that he does not think medical treatment necessary. This is the only form of infectious disease we have had during the year. The township is in an excellent sanitary condition.

P. G. BAILEY,
Secretary.

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*[By carefully reading over the General Health Acts, it will be found that Local Boards have the powers, and certainly they should be enforced.—ED. REPORTS].

ST. VINCENT.

Chairman's Report.

The same persons constitute the Board as for 1886. There has been no complaint or case to require investigation during the year.

The Board reports the sanitary condition of the township as being generally good, as is also the general health of the people.

JAS. BOWES, JR.,
Chairman.

SANDWICH EAST AND WEST.

Medical Health Officer's Report.

I beg leave to submit my annual report for the year ending 1887. During the past year infectious and contagious diseases have fortunately been very scarce. There is but one case at present to my knowledge of scarlet fever in the township.

A committee appointed by the Board, consisting of myself, the reeve and Sanitary Inspector, inspected and carefully examined the premises known as the Dominion Sugar Refinery, situated in Walkerville. We found that the water for a long distance below the works was rendered unfit for use because of the emptying of the sludge from the works into the river. The manager of the works explained the nuisance in this way: The box drain built to convey the refuse from the factory into running water had become blocked up, and they were consequently obliged to dump the refuse along the shore. I would recommend that the same committee again inspect the works to ascertain whether the nuisance has been removed.

H. R. CASGRAIN, M.D.,
Medical Health Officer.

SARNIA.

Medical Health Officer's Report.

I have the honour herewith to submit the following report for the year 1887. During the early months of the year measles prevailed extensively in the southern parts of the township. The disease was of a somewhat severe type, but there were very few fatal cases. During the summer and autumn months it was feared that the great drouth, and scarcity of water both for animals and for household use, would lead to serious results; but fortunately the general health of the community seemed very good indeed. There were, however, a few cases of typhoid, caused, in all probability, from using water which had been polluted by soakage from adjacent manure heaps and other contaminating sources percolating through the ground to the wells.

In the month of December scarlet fever, which had been prevalent at the village of Point Edward for several weeks, made its appearance on the second concession of the township and extended to three families residing near the Sarnia and Florence gravel road, and subsequently some young friends of one of the families visiting them conveyed the fever to their home in the fifth concession; happily none of the cases have as yet proved fatal.

The attention of the heads of families in which scarlet fever had appeared was drawn by the Sanitary Inspector, Mr. Copland, to the contagious and often dangerous character of the disease, and the request made that they should not mingle with the neighbours at church or public gatherings till the danger of infection should have ceased.

Owing to the great inconvenience to farmers of having to remain at home while marketing, milling and teaming require them to be moving about, it is difficult to have a

strict quarantine and isolation carried out. And the sympathy of neighbours in country districts towards each other when suffering from affliction is so great that they can scarcely refrain from manifesting their kindness and good feeling for the afflicted by visiting and remaining at their houses often unreasonably long. Even contagious disease will not deter a considerable amount of visiting, particularly if the type of the disease be mild; when the epidemic is severe the visiting is much less. Reporting contagious or infectious disease, and placarding houses infected, has not yet been observed to any extent in the township.

The advantage of placarding consists largely in giving timely warning to persons calling at houses so distinguished not to enter if they have any dread of the disease, and desire to avoid conveying it to their own families or to other persons.

Complaints have for several years past been informally made of the offensive smells arising from slaughter houses in the outskirts of the town of Sarnia, and of the fisheries on the banks of the St. Clair, in the Indian reservation. The complaints are both by travellers on the road and by persons residing in the vicinity of the places in question. I have reason to believe that the smells are at times very disgusting. This nuisance, I think, could be largely if not wholly obviated by the use of dry earth scattered regularly on the blood and offal incident to such establishments, in the absence of a supply of water to flush it away. Dry earth, properly applied, would not only prevent the nuisance complained of, but, if gathered up and placed in a heap, would be recognized by gardeners and farmers as an excellent fertilizer, and thereby defray the expense of using it. As a matter affecting the public health this should not be lost sight of, as it must surely be injurious to meat to have it hanging for hours in an atmosphere reeking with putrid emanations from decomposing blood or other decomposing animal matter, before conveying it to the stalls for sale and distribution to the consumers. I would also call the attention of the Board respectfully to the practice of hauling refuse and rubbish of different kinds from the town of Sarnia and unloading it in open spaces or by the wayside, instead of either destroying it by fire or by burying it in some place provided by the health authorities, or by the corporation of the town of Sarnia, for that purpose. I would also here refer to the regulations recently adopted by the Provincial Board of Health for the licensing and registration of shippers and vendors of milk. Those regulations are, in my opinion, in the interest not only of the public but in that of the respectable and honest dealer, who need not fear any inspection or criticism as to the quality of his milk, the condition of his byres, or the health and comfort of his cattle; and as there are no irksome or vexatious conditions imposed upon parties taking licenses, and no fees, or at farthest only nominal fees imposed. the regulations should meet with the acquiescence and approval of dairymen themselves. All of which is respectfully submitted. I have the honor to be, gentlemen, your obedient servant,

A. MACLEAN, M.D.,
Medical Health Officer.

SAUGEEN.

Medical Health Officer's Report.

In presenting the third annual report of the Medical Health Officer, in compliance with the Public Health Act, I would congratulate you upon the freedom from disease generally throughout the township during the year. The death-rate has, I think, been low and the sanitary condition very satisfactory.

A few months ago a mild epidemic of diphtheria existed in S. S. No. 6, but as I was not asked to make any investigation, I cannot say how it originated, or how far it was due to preventible causes, though probably it had an outside source. In all such cases I would suggest prompt official examination, and the closure of the school if found necessary.

J. W. McARTHUR, M.D.,
Medical Health Officer.

SARAWAK.

Medical Health Officer's Report.

My duty as Medical Health Officer is satisfactorily performed in submitting this report for 1887.

We are in a position to congratulate ourselves on the health of our people, and the general sanitary environments of their homes. No epidemic or endemical disease during the present year. The Health Inspector has been indefatigable in his endeavors to improve the healthy condition of the township, and we have every reason to be thankful that the Board has secured a profitable reward for its labours.

CHAS. E. BARNHART, M.B.,
Medical Health Officer.

SCOTT.

Medical Health Officer's Report.

In looking over the year 1887 with a view to making out my annual report, I may say that, on the whole, the sanitary condition of the township up to the present is fairly satisfactory. There have been about nine or ten cases of typhoid fever this year, and the majority of these cases have been caused by the pollution of drinking water by soakage or drainage from the barnyard into the wells. Many people suppose that where water is filtered through a few inches of ground it is perfectly pure and fit for family use, but in such water are often found the germs of typhoid fever and other diseases. Now, a properly-constructed well should be raised a few feet above the level of the ground with brick and mortar, and well secured at the top to prevent leakage from above. In many cases we find the well situated in the barnyard, and in others, again, although they are not quite so near, they are on lower ground and necessarily are the receptacle for drainage from the barnyard. I would also like to draw your attention to another point. It is a mistake to think that because there is no standing water in the cellar there is no dampness. For while there may really be no standing water there the cellar floor may be sufficiently damp to be the cause of many diseases of throat and lungs. This difficulty might be easily overcome if there was an open drain under every house to purify at least two feet of earth, and also carry off all bad air accumulating there. The minds of the people should first be thoroughly aroused to these dangers, and then we may hope to see the sanitary condition of the township very much improved in these respects.

D. CAMPBELL,
Medical Health Officer.

SENECA.

Medical Health Officer's Report.

As Medical Health Officer for the township of Seneca, I have the honour to report that the general sanitary condition of the municipality is favourable. There has been no epidemic of any kind. A few isolated cases of diphtheria, none fatal, and one case of scarlet fever occurred. There has been no typhoid in the lower or eastern end of the township, and none have been reported from the western side of Seneca. The residents are gradually becoming alive to the benefit of sanitary laws, and as a rule meet readily any suggestions or orders they receive for their own benefit and protection. The great scarcity of water all over the township was not followed by any evil consequences, but indirectly was the means of causing a great number of wells to be bored, giving in this

locality an abundant supply of good pure water, which will tend still further to lessen the cause of disease.

The general health of the township is very good, and as far as I know the death-rate for the year has been very low.

ROBERT H. DAVIS, M.D.,
Medical Health Officer.

SHERBROOKE.

Secretary's Report.

Not as yet having received any report from the Chairman or Medical Health Officer of the Local Board of Health for the township of Sherbrooke, I take it upon myself to furnish you with the annual report as requested.

Diphtheria appears to have been the most prevalent disease in the township during the year and of which there were seven cases, as near as I can find out, resulting in one death. I might say that there is no contagious disease that I know of in the township at present. The reason why I have been so dilatory in sending you this, is on account of my waiting for the report from the Chairman and Medical Health Officer, as neither of them live, in the township. I have written twice to them on the subject with out receiving any answer.

WM. CHALMERS,
Secretary.

SOPHIASBURG.

Secretary's Report.

The Board met at the Township Clerk's office, Demorestville, on Friday, the 2nd day of December, 1887, at the hour of 3 o'clock p.m. Members present: Samuel N. Smith, Esq., Reeve; Dr. J. Cryan, Medical Health Officer, and Messrs. Josiah Benson, Albert J. Brooks, members, and Ira B. Barton, Secretary.

Moved by J. Benson, seconded by A. J. Brooks, That S. N. Smith be appointed Chairman of the Board.—Carried. The Secretary read a communication from the Secretary of the Provincial Board of Health.

Moved by A. J. Brooks, seconded by Josiah Benson, That all members of the Board be and are hereby ordered to take action to have all parties punished who neglect to carry out the provisions of the Public Health Act as therein provided.—Carried.

On motion of Dr. J. Cryan, seconded by J. Benson, the Board adjourned to meet again on the call of the Chairman. Our Medical Health Officer thought it not advisable to make his annual report the present year on account of there being no contagious diseases prevalent, but will in the future make full reports. The Board hope to attend to their duties more faithfully in the future.

IRA B. BARTON,
Secretary.

SOUTHWOLD.

Secretary's Report.

The Local Board of Health of the municipality of the township of Southwold, in the County of Elgin, have the honour to make their third annual report, and in doing so beg to state that said municipality has been highly favoured in the last twelve months, for

there has not been one case of any kind of contagious diseases within the municipality, such as typhoid fever, scarlet fever, diphtheria or smallpox. There have been a few cases of malaria, but they did not amount to much. All deaths reported within the last twelve months were from natural causes, except two cases of suicide. There were three complaints made during the year of existing nuisances to the Board of Health, which were attended to and removed at once. All slaughter houses, cheese factories, dairies, school houses and premises thereto, were inspected and almost in every case they were next to faultless. Each member of the Board acts as health officer. The Board have divided the municipality into districts and each member has his district, to look after. The Board held five meetings during the last year and inspected all slaughter houses, cheese factories and dairies in a body. The sanitary condition of this municipality will compare favourably.

M. CAMPBELL,
Secretary.

STAMFORD.

Medical Health Officer's Report.

I have to say that the past year has been a remarkably healthy one ; no prevailing epidemics. Have had reported to me three mild cases of diphtheria, two by Dr. Trimble and one by Dr. McGarry. Have had none in my own practice. Believe the sanitary condition of the municipality to be good, from what I have learned from the Inspector. Anything that has come to my notice has been referred to him for investigation.

JOHN M. DEE, M.D.,
Medical Health Officer.

STEPHEN.

Secretary's Report.

So far as making out a report I have not much grounds for material. The members of the Board are quite regardless of their duties and leave everything with the Secretary. I have no Chairman's report, no Medical Health Officer's report, no report from the Sanitary Inspector, and should I request such reports to be handed in it would not be done. Knowing that no member of the Board or other official than myself has in any way acted in the matter, I will make a report of what has been done by me as Secretary. Some time in the early part of the summer a resident of this locality visited friends near Toronto, remaining some weeks. It appears diphtheria of a very malignant nature was in the family where she was visiting. Her child took the disease and got better. The lady took this child to this township, and the disease was caught from said child and numbers died. I visited the medical men, and the usual preventive measures were used. I ordered the school to be closed. The Chairman of the Board lost one son, and he and his wife were both down with it. I placarded the places and did everything that I could do to prevent its spread. I think there is no cases in this township at present, although in the adjoining township one family were all down ; three deaths and more sick. Typhoid fever carried off a few Measles are prevalent around this locality at present. Since writing the above one case of diphtheria has occurred, but the patient recovered. I hear of no more cases. The Board met yesterday, 12th December, but no reports were handed in. I was requested to make this report in accordance with above facts, which was adopted.

C. PROUTS,
Secretary.

STISTED.

Secretary's Report.

I beg to submit to you the annual report of the Stisted Board of Health. The Board met on the 24th November, and reported the township to be in a very satisfactory condition—no contagious disease of any kind—the deaths registered in the township being only one for the year out of a population of 700. That speaks for itself in regard to the health of the municipality.

TOM LAKEMAN,
Secretary.

SULLIVAN.

Secretary's Report.

During the year now closing our municipality has been free from any contagious disease, the general health being exceptionally good, the death-rate being very low. Out of a population of 3,750, only three deaths were reported for registration during the past six months and two of these were persons over 85 years of age. The Board attended to the sanitary condition of school houses and school premises. No Medical Health Officer or Sanitary Inspector was appointed this year.

A. STEPHEN,
Secretary.

SUNNIDALE.

Secretary's Report.

As regards the sanitary state of this division for the present year, we are pleased and feel thankful that there has been no outbreak of any disease of an epidemic character. There has not been any necessity for a meeting of the Local Board, and therefore no need of a report by our Medical Health Officer. The deaths occurring among us were of the ordinary class in a healthy locality, as our position is a purely agricultural one. We have only two villages, and singular to relate we have no tanneries, slaughter houses, factories, or any business of an unhealthy character.

GEORGE BURROWS,
Secretary.

THOROLD.

Medical Health Officer's Report.

The Board of Health of the township of Thorold, after being constituted by the Council of said township, met and organized. I was appointed Medical Health Officer and Inspector, Mr. John Wilson, the Reeve, being the other Inspector.

We had occasion to make several tours of inspection to the various slaughter houses which lie within our jurisdiction. The butchers slaughtering in these houses we found had to get frequent instructions and repeated warnings before they would comply with the arrangements of the Local Board as to cleanliness and other sanitary precautions.

We succeeded, however, in bringing these places to a condition of sanitary perfection but not without an effort, I can assure you, and in one case particularly we were on the verge of having recourse to prosecution under the Act, before we succeeded.

In the case of slaughter houses we have found that it is necessary to maintain a constant surveillance over them, as they are inclined to be negligent and dilatory with their sanitary precautions, and to take advantage of the interim between the Inspectors' visits.

All the butchers keep pigs in an immediate adjacent lot to the slaughter house, allowing the pigs to feed out of a trough into which the blood runs directly from the slaughter house floor.

With this arrangement we have had considerable trouble, and the idea has occurred to me that it may be necessary to have them isolate the pigs and carry the blood and other offal some distance from the slaughter house to where the pigs are fed.

Our Inspectors, besides making the necessary inspections in connection with the slaughter houses, made such other inspections as we deemed necessary, viz., we made tours of inspection to villages where cows and pigs were kept, and where we found ample scope for work, and where we suggested many changes and improvements in a sanitary view.

We also attended to any complaints which were made to us, many of them trivial, others of importance; and in all cases I am pleased to be able to state that we were enabled to properly adjust matters satisfactorily to ourselves and all other parties concerned.

Your Secretary has sent to me numerous blanks of set questions, which I was requested to fill out with answers.

I have not complied. My reason for not doing so was because the questions asked were not in, perhaps more than one in ten, applicable to rural districts, and consequently the result of my answers to those questions would be, as to any advantageous results, almost negative. The questions asked were mainly suitable only to large towns and cities each deriving water supply from some common source, and have, sewer traps, ventilation sewerage, etc. This leads me to ask you the question: Have you in your Board any representatives of rural districts? If not, permit me here to suggest the acquisition to your ranks of some competent co-operatives from rural districts, who would be enabled to assist you very materially in the very laudable objects of your Board, and in making your "science applied" still more general and effectual.

We have in rural districts two principal sources of water supply, or I might perhaps add a third, viz.: 1st, from the rain fall, which is collected from the roofs of the buildings and conveyed by means of conduct pipes to cisterns from which many people derive their sole supply. 2nd. Natural springs, which usually furnish very pure water. 3rd. Wells, of which there are two very distinct kinds, viz., 1st. the old fashioned well dug into the ground from fifteen to thirty or forty feet until a supply of water is found, and which in itself is usually pure, but which is almost universally contaminated by the ingress of surface drainage which carries into these wells the washings from all the excrementitious matters in their vicinity, thereby rendering the water, in the majority of the wells in the rural districts, unfit for use.

Very many wells if examined would, I am satisfied, be found in a very filthy condition, owing to the neglect of the people and their ignorance of the dangers attendant thereon.

A remedy for this should be sought out and applied.

The second division of which I spoke is the artesian well, which precludes the possibility of surface drainage into the well; but the water found in them is, in this part of the country at least, highly impregnated with minerals in solution. and notably sulphur.

This municipality has been remarkably free from both epidemic and endemic diseases, due, I have no doubt, to a certain extent at least to the careful supervision exercised by the Board in matters pertaining to health and sanitary reform.

H. PARK, M.D.,
Medical Health Officer.

TILBURY WEST.

Secretary's Report.

In presenting my annual report it gives me pleasure to be able to state that during the past year the sanitary condition of the township appears to have been good. We have not at present any epidemic of contagious or infectious disease, except a few cases of diphtheria and typhoid fever, the latter being the only infectious disease that showed any tendency to malignancy, or indication of becoming to any extent epidemic; about twenty cases of this disease have been reported during the past year, a few being fatal.

J. B. CHAUVIN,
Secretary.

TORONTO GORE.

Chairman's Report.

In conformity with Sec. 24 of Health Act, 1884, and sections 1 and 3 of Schedule A of the said Act, the undersigned has to report as follows:—

That during the year 1887 the Local Board has not been called upon to take any action, asthe health of the township has been exceptionally good; and in no case has any case of contagious disease been brought to the notice of the Board.

I have also to report that no slaughter house or other public nuisance has existed in the township during the present year.

M. DOHERTY,
Chairman.

TUCKERSMITH.

Medical Health Officer's Report.

In presenting to you my annual report as Medical Health Officer for the township of Tuckersmith, I have to express my satifaction with the hearty manner in which the different members of the Board have co-operated in carrying out the regulations prescribed by law for their guidance.

In the early part of the year it was deemed advisable to comply with the regulation respecting compulsory vaccination, and as Medical Health Officer I attended at the various schools in the township and vaccinated a large number of children. I regard this action as highly commendable, and I believe that at the present nearly all the pupils in attendance at the township schools have undergone vaccination and are consequently possessed of what experience has proved to be the strongest protection against that most dreaded disease—smallpox.

I am glad to report that during the year there has been no epidemic of a serious character within the municipality. One or two fatal cases of diphtheria have been reported, but in each case the disease originated outside the bounds of the municipality; and from the careful attention and strict measures adopted the spread of the disease has been prevented, and in no case brought to my notice has more than one person been attacked in the same household. There have during the latter part of the year been a few cases of typhoid fever, but I have reason to know that the origin of the disease could not be located within the township in the majority of cases. In families where the disease has appeared in at least two instances a member of the family living in another locality has returned home with what proved to be typhoid, and notwithstanding every precaution being taken, other members of the family have been prostrated

with the disease. Fortunately, no fatal cases have been reported, and I believe the progress of the disease has been checked by the timely attention given by the medical attendants and the members of the households to prevent its spread.

I am glad to report that there is an increased desire on the part of the people to appreciate and endeavour to carry out the regulations and rules governing householders in reference to the sanitary condition af their premises.

In the erection of two new school houses within the municipality due care has, I am pleased to report, been taken in providing for the pupils buildings possessing good ventilation, and having in each room even more than the number of cubic feet of air necessary for each pupil. These new school houses supply a want which has for some time been experienced, the former buildings being of such size as to render it necessary to crowd altogether too many pupils into apartments much smaller than were consistent with the laws and regulations governing in such matters.

In closing this report I beg to express the satisfaction I have experienced during the year in the courteous treatment I have received in the discharge of my duties and my pleasure at the increased interest being taken in the promotion of everything calculated to advance the sanitary interests of the township.

R. W. BRUCE SMITH, M.D., C.M.,
Medical Health Officer.

TURNBURY.

Chairman's Report.

It is with pleasure that we have to report that no epidemic or contagious disease of any kind has visited us during the year that is now drawing to a close. No cases of diphtheria have been in the municipality to the knowledge of the board.

There have been two or three cases of typhoid fever in the Wingham Town Plot, arising no doubt from the marshy nature of the ground, one of them proving fatal. As these cases were under proper medical treatment, they were not reported to the board, neither was the Medical Health Officer ever called to visit them.

The only work that the board has bsen called on to perform has been the removing of the nuisance arising from the hog-pen at the cheese factory in Bluevale. No complaint has been made about it this summer.

JAMES ELLIOTT.
Chairman.

USBORNE.

Medical Health Officer's Report.

I beg leave to submit to you my annual report.

In October diptheria made its appearance from a neighbouring municipality, and from this case came six others, all of the same family. Four deaths have resulted.

On the first intimation of the outbreak, the chairman of the board and myself visited the place, made an examination of the house and its surroundings, and had the house placarded and isolated. We found the house and all its surroundings well fitted for the development of diptheretic germs. The well was close to the door and the chiphill. The earth surrounding the well was apparently the receptacle of the soap-suds and dish-water of the house.

We ordered all funerals to be strictly private, and isolation for six weeks after all signs of the disease had left the house, and all clothing and the house had been thoroughly disinfected. Another building has been drawn up near the dwelling, which has been fitted

up for the use of those members of the family who have not been affected or have recovered, while the frame part of the dwelling is used as an hospital.

We recommended that the log portion of the dwelling should be burnt.

We have taken every precaution to keep the disease from spreading to any other household. I would again direct the attention of this board to the condition of our schools and their surroundings. It would be well to direct the attention of school trustees to the provisions of the Health Act.

They are moving in the right direction as the condition of the schools testify, but we wish they would move a little faster. The yards should be well drained and the disgusting privy pits should be supplanted by the dry earth closet or some such system. The supply of drinking water should be kept pure and in abundance. School wells should be pumped out at least after spring freshets and after holidays.

The heating and ventilation of schools and public buildings is a matter of very great importance, especially so to the health of school children, and is a proper subject for the consideration of this board. In closing this report I would express the hope that next year we may be more strenuous in our efforts to promote sanitary reforms than we have been in the past.

W. IRVING, M.D.,
Medical Health Officer.

WAINFLEET.

Medical Health Officer's Report.

It is my pleasing duty to report that during the past year, although we have been attacked by a double epidemic, scarlet fever and diphtheria, there has been but one death from the same.

In every instance of contagious disease coming to notice during the past year, prompt measures were taken for its suppression, and your board is to be congratulated upon its success. In the adjoining Township of Moulton, where the board for a time procrastinated, diphtheria spread at a fearful rate and a great many children died, and its progress was not checked until outside aid was called upon. The efficiency of the measures then taken to stop its progress was well evinced by the fact that in less than a week there was not a new case in the Township of Moulton.

The people objected less this year than last to having their residences placarded when it was necessary, and are beginning to appreciate more the efforts of the board, and I think in the future all opposition on their part will be of a very trifling nature. I would suggest that the board appoint a sanitary inspector of the township next year, in May or early in June, and educate the people to have their privies properly disinfected once or twice a year, and especially those of the public schools should be seen to.

See that all cases of an epidemic nature be reported to you at once by the attending physician, so that you may take proper steps to prevent the spread of the same.

During the past year there have been forty-seven cases of scarlet fever, thirty-eight of diphtheria and one case of typho-malaria fever, and no other epidemic or contagious disease under my notice. One death from diphtheria, under care of Dr. Emmit, has occurred in the township.

W. B. HOPKINS, M.D.,
Medical Health Officer.

WALLACE.

Secretary's Report.

In conformity with the directions of the board I have obtained 200 copies each of placards, scarlet fever, diphtheria, small-pox, cholera and whooping cough, for the use of

physicians and the Sanitary Inspector, and had also sent by mail printed forms of section 49 of the Health Act to all medical men known to be practising in the township.

I have not personally known of a single case of any contagious or infectious disease during the year in the Township of Wallace, nor have I been notified of any such.

During the year the Medical Health Officer visited a number of the schools and inspected the condition of wells, grounds, buildings and water-closets, and ordered such changes as were deemed necessary.

The sanitary condition of the township will compare favourably with that of any municipality of the Province of Ontario.

R. G. ROBERTS,
Secretary.

WALSINGHAM.

Secretary's Report.

I beg to say that the Local Board of Health for the Township of Walsingham met on the 3rd of November, the first and only time during the current year.

Our council has not appointed a Medical Health Officer. We have a Sanitary Inspectors who looks after the state of premises in the Village of Port Rowan.

JOHN PHELAN,
Secretary.

WATERLOO.

Secretary's Report.

The first meeting of the board was held on Monday, January 31st, in accordance with the statute. All the members attended and subscribed to the declaration of office. It was then ordered to have the report for the year 1886 published with the report of the proceedings and by-laws of the Municipal Council, which was done, thus ensuring a more general distribution of the same.

A complaint was lodged by Mr. Peter Sherk in reference to the deposit of manure and refuse from the distillery and cattle byres of J. E. Seagram, of Waterloo, and also dye refuse and washings from the Waterloo Woollen Mills, into the creek leading from Waterloo to Bridgeport. On instructions from the board the proper parties were duly notified to have the nuisance abated.

Complaint was also made to the board of a grievous nuisance caused by the slaughter house of Joseph Blaschke & Sons, of Blair, and also as to that of Otto Gastmier, of Bridgeport. Both of these parties were at once notified by the secretary, and acted on the notice immediately, and had their premises properly cleaned up, thus fortunately saving the adoption of severe measures.

Early in the season there was an outbreak of typhoid fever of a very malignant type in the family of Mr. Jacob Groh, near Preston. The attending physician, Dr. Mulloy, at once notified the secretary of this board, who placarded the premises, and as the family were in indigent circumstances, and none of them able to do any work, this board, in the public interest, felt it their duty to employ an experienced nurse for them, and also instructed the physician to supply what necessaries were required and present his account for the same to this board. This was done and we are pleased to report that only one member of the family died, and we believe that by the care and preventive measures adopted by the nurse and physician the disease was confined to the one family. The cost was considerable, but the money was well spent.

Seven other cases of typhoid fever and two cases of diphtheria occurred in the municipality of which we had cognizance during the year, but they were of a milder form, and fortunately no deaths occurred, and by the adoption of timely preventative measures, the disease was in each instance confined to the cases where it originated.

The general public health of this municipality has been good. There have been no epidemics or visitations of diseases of a contagious character, and the death-rate has been about the average.

GEO. A. TILT,
Secretary.

WATT.

Secretary's Report.

The Local Board of Health of the Township of Watt, in submitting their annual report to the Provincial Board of Health for the year 1887, have much pleasure in stating that the sanitary condition of this township is in a very satisfactory and healthy condition, and that no outbreak of disease has occurred of a contagious character during the present year.

FRED. RICHARDSON,
Secretary.

WAWANOSH EAST.

Medical Health Officer's Report.

In conformity with the provisions of Health Act of 1884, it is my duty to report that the state of the municipality during the past year has been fairly healthy; that no nuisances have been complained of, and that no contagious or other diseases have prevailed to such an extent as to require public interference.

As a result of the hot and dry summer, we have had a general epidemic of dysentery, but of a mild type and very amenable to treatment.

The same remark applies to measles. I think a scrutiny of our registrar's book will show that but few of the deaths in the municipality are caused by those diseases that are generally considered amenable to hygiene or preventive medicine.

All of which is respectfully submitted.

WM. SLOAN, M.D.,
Medical Health Officer.

WHITCHURCH.

I beg respectfully to report that there has not been a meeting of the Board of Health since the annual meeting for organization.

We are pleased to report that, from enquiry and our own personal knowledge, there has not been a sufficient number of cases of persons inflicted with contagious diseases to require the attention of the Board.

Of course there has been some isolated cases of typhoid fever and diphtheria and a few deaths caused by those diseases, but from enquiry we find that the medical men as well as others in attendance have used all necessary precaution to prevent the spreading of the same.

S. L. FREEL, M.D.,
Medical Health Officer.

WILLIAMSBURG.

Secretary's Report.

The duties of the Board during the past year have been absolutely nominal, owing to the excellent sanitary condition of the township and the general good health of the people No contagious or infectious disease has occurred during the year, notwithstanding that diphtheria has been prevalent in an adjoining township.

G. C. TRACY,
Secretary.

WILLIAMS EAST.

Chairman's Report.

In compliance with the requirements of section 24 of the Public Health Act, 1884, I beg to report that there has been no sanitary work done by the Local Board of Health during the year in this municipality—none being necessary. There has been one case of typhoid fever, which terminated fatally ; there has been likewise one case of diphtheritic croup. With these two exceptions there have been no cases of infectious or epidemic disease in the township during the season. The general condition of the public health is therefore very satisfactory.

TREFFORD CAMPBELL,
Chairman.

WILMOT.

Medical Health Officer's Report.

Though threatened with an invasion of diphtheria on two occasions we have happily escaped any serious trouble, a fact which speaks well for the sanitary condition of our township. We should regard ourselves as especially fortunate this summer in escaping, so far as I know, without a single death from the disease when it existed in a severe form in our immediate neighbourhood.

The duties of our Inspector have been this year extended to the special inspection of the schoolhouses, yards and privies in each school section. Though this has greatly added to his labours, it is work well applied. The school premises in each school section should approach sanitary perfection as near as possible. I cannot lay too much stress upon the fact that a dirty, stinking school yard and privy may not only be a centre from which infectious diseases are carried to the homes of pupils, but by continually breathing the foul air their constitutions may be undermined.

Hitherto the Act providing for the report of infectious diseases has not been enforced. I might suggest that printed slips be supplied the medical men upon which to make such reports, so that when an infectious case arises no time may be lost in taking steps to isolate it and thus prevent the spread of the disease in the neighbourhood or in the school.

Altogether I think your Board may be congratulated for its work this year. I hope we shall all hold ourselves ready to deal with epidemics of preventible disease, and not forget to eradicate their causes—all unsanitary conditions in our municipality.

JOHN MARTY, M.D.,
Medical Health Officer.

WOODHOUSE.

Medical Health Officer's Report.

During the current year one family in this municipality was afflicted with diphtheria. The disease was contracted by visiting a family in an adjoining municipality in which a child died of diphtheria, the case having been pronounced ordinary sore throat. Two of the children had died before I was notified. On visiting the house I found the mother and two of the three remaining children down with the disease. One of the latter afterwards died, making three deaths altogether. The water in the well seemed good, and no unsanitary conditions were visible, the disease having been communicated as above stated. By the use of disinfectants and isolation there was no farther spread of the disease. These cases occurred in the month of August. During the following months several cases of malarial and two or three cases of typhoid fever have occurred, with no deaths. The disease was owing to the long, dry season and the consequent scarcity and impurity of the well water, and not because of any unsanitary conditions connected with the premises concerned. With the above exceptions the general health of the municipality has been good.

JOHN McLEAN, M.D.,
Medical Health Officer.

WOOLWICH.

Medical Health Officer's Report.

We have great pleasure in reporting that the township continues to improve as regards sanitary conditions. A good many pig-styes, both in the country and villages have been moved or rebuilt, one in particular near the centre of one village, which was of stone and worth more than one hundred dollars, has been voluntarily removed to the required seventy feet and rebuilt of stone and brick.

The Board of Health have met three times during the year, all members being present at each meeting, viz., St. Jacobs on January 31st, at Conestogo on May 27th, and at St. Jacobs on October 17th.

We would also report the health of the township as extremely satisfactory at least to most people, as all the physicians report less sickness than ever before in any one year.

We have had no real diphtheria at all, no epidemic of any kind, and only eleven cases of typhoid fever, three of which were slight and three died. These were nearly all at one house, and the Board of Health sent the Chairman and Medical Health Officer to try and discover the cause.

The result of their investigation was that they believe the fever to have been brought to the house, as the well, which at first was thought to be to blame, was found all right and had been used for twenty years, during which time no fever had been in the house until now.

The Health Officer would report that he was directed by the Board of Health to issue the usual annual orders to clean up, and also to visit the villages of Floradale, St. Jacobs, Heidelberg, Winterbourne, West Montrose and Conestogo, which duties were performed; also, all the cheese factories, slaughter houses, etc., were visited and found in good shape except one slaughter house, and that was during the very dry, hot weather, and it was straightened up.

There was no vaccination this year.

W. J. PASMORE, M.D.,
Medical Health Officer and Sanitary Inspector.

YARMOUTH.

Secretary's Report.

The Board met four times during the year. They inspected all slaughter houses, etc., and found them in good condition.

No complaints were received concerning the sanitary condition of the township, which we believe is first-class.

K. W. McKAY,
Secretary.

ZONE.

Medical Health Officer's Report.

In making out my annual report for the township, I beg to state that there has been very little sickness of an epidemic character, there being only one case of typhoid fever and four or five cases of diphtheria of a mild type. I immediately placarded the house and ordered them to use disinfectants.

R. D. SWISHER, M.D.,
Medical Health Officer.

ZORRA EAST.

Chairman's Report.

The Board appointed two Sanitary Inspectors and authorized them to inspect all school houses, outbuildings and wells connected with each. All the cheese factories, slaughter houses, etc., were found in a sanitary condition. After serving notices to abate nuisances, the outbuildings of two school houses were put in sanitary order.

The Medical Health Officer states in his report, which is brief, that he had nothing to do or never was called on, and that therefore he had nothing to report, but requested that steps should be taken to make dry earth closets compulsory by by-law.

LEVI WILDFANG,
Chairman.

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FIRST REPORT

OF

THE COMMISSION

ON

MUNICIPAL INSTITUTIONS

APPOINTED BY THE GOVERNMENT OF THE PROVINCE OF ONTARIO.

Printed by Order of the Legislative Assembly.

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1888.

FIRST REPORT

OF THE

MUNICIPAL COMMISSION.

Toronto, March 16th, 1888.

To the Honourable
Sir Alexander Campbell, K. C. M. G.,
Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour,—We, the undersigned Commissioners, appointed by commission under the Great Seal of the Province and bearing date the ninth day of December, A.D. 1888, to collect information and report with reference to certain municipal and other matters therein set forth, beg leave to submit herewith our first Report, pursuant to the directions of our said commission.

We have the honour to be,
Your Honour's most obedient servants,

T. W. ANGLIN,
E. F. B. JOHNSTON,
WM. HOUSTON,
} Commissioners.

By commission under the great seal of the Province we were directed "to collect and report on, for the information of the Legislature and the Government of the Province, the constitution, government and laws affecting municipal institutions in other countries and Provinces, and the working of the same, and any proposals which have been made and not yet adopted for their improvement with special reference to any material particulars in which such constitution, government and laws, especially in the case of cities and counties, differ from the constitution, government and laws of municipal institutions in this Province, and also to make enquiries with reference to and report on the local machinery in use or necessary to secure the due administration of criminal justice."

The scope of the enquiry we were thus instructed to make is manifestly very wide. We found the material within our reach very meagre. The works on municipal institutions to be found in the Legislative library are few in number, none of them were written for the purpose of facilitating such an enquiry, and nearly all of them were published before some of the important amendments of the laws, which have materially changed the character of the municipal institutions of Great Britain and of many cities in the United States, were made. We endeavored to procure copies of the recent Acts of State Legislatures, and of late works bearing on this subject, and such information generally as we believed to be necessary in order to carry out our instructions fully, but our efforts in this direction have not been as successful as we could wish.

MUNICIPAL INSTITUTIONS IN GREAT BRITAIN AND IRELAND.

As we have derived all our institutions, political and municipal, directly or indirectly from Great Britain, we endeavored to trace the growth and development of municipal institutions in that country, and to ascertain whether anything likely to be beneficial to us could be gathered from its experience or example. We found the task very difficult and not very profitable.

England.

The present condition of local government in England, Mr. Goschen described a few years ago as "a chaos of authorities, a chaos of rates, and, worse than all, a chaos of areas." The powers which we believe should be exercised by municipal bodies elected by the people, are there divided amongst local bodies, between which there is no connection, save what has been effected by the control which the local Government Board, created in 1870, exercises over some of them.

For the models on which our institutions are framed we must look to a remote period. In the Anglo Saxon times the mark or tithing, afterwards called township, had, as our township has to-day, its Reeve and four associates, who managed its local affairs and represented it in Wapentake or Hundred mote,* and, when counties were organised, in the Shire mote. At those assemblies justice was done in criminal and civil affairs, and provision was made for the construction of roads and of such other works as were deemed necessary, the greater works being undertaken by the Hundred over whose mote the Hundred man presided, or by the Shire at whose assembly the ealdorman and with him, in Christian times, the Bishop presided. In those days cities and boroughs enjoyed a large measure of self-government conferred upon them by royal charter, or established by prescriptive usage. The commissioners appointed to enquire into the state of the boroughs of England, in 1833, reported that a charter granted by Athelstan, and another by Edward the Confessor, were still extant. It is probable, however, that the rights and privileges enjoyed by cities and boroughs arose from the people's desire for independence, from their genius for self-government, and from the circumstances which forced those communities to act as one for the protection of all.

Those Anglo-Saxon charters, like the many royal and baronial charters issued after the conquest, gave or guaranteed to the citizens and burgesses only the right to elect their own magistrates, to make what laws they thought necessary for the management of the city or borough, to establish markets to carry on their business without interruption and to raise among themselves in their own way the taxes which under various names they were required to pay to king or baron, to abbot or prelate. The only material change the conqueror attempted to make in their constitution was the substitution of a royal bailiff for the port-reeve as chief magistrate. The chief duty of this officer was to collect and pay over the royal tribute. But the cities and towns one after another induced the monarch, by offer of more liberal contributions, to allow them to elect their own chief magistrate, who was then called Mayor. During the long struggle between the king and the great feudal nobles, which, commencing in the reign of the Conqueror, continued for centuries, the cities and boroughs grew in importance and acquired greater privileges. The monarch sought to secure their assistance which often proved valuable, and the barons found it necessary to attach more firmly to their interests the boroughs which held charters from them.

* The public meeting of that time.

During all those years no attempt was made by king or baron to prescribe the manner in which the cities and boroughs should carry on their government or manage their own affairs. All the freemen living in a borough paying scot and bearing lot were burgesses, and all took part in the election of the Mayor and other borough officers, in making the by-laws,* and in the transaction of all other borough business. Villeins † who resided in any borough unclaimed for a year and a day became freemen.

When cities or boroughs, becoming too large to be governed by the decisions of the free burgesses in borough-mote or town meeting assembled, began to adopt the representative system and to elect town councillors is matter of dispute. Corporations, such as afterwards existed in nearly all the boroughs, were unknown until the reign of Henry the Sixth, when ‡ the first corporation was created in Kingston-upon-Hull. The Crown selecting a small body of men conferred upon them the exclusive right to govern the city, to elect from among themselves the mayor and aldermen, to appoint all the officers and hold and control the property and revenues. The aldermen held office for life, and when one died the other aldermen elected his successor. It is worthy of observation that in this reign also, a law was passed providing that none but forty-shilling freeholders should take part in the election of Knights of the shire. This was a very high qualification in those days. Up to that time all freemen were electors. The pretext for the change was "that in many counties of the realm elections have of late been made by very great outrageous and excessive numbers of people, . . . of which most part was of people of small substance and no value, . . . whereby manslaughter, riots, batteries and divisions . . . shall very likely rise and be, unless convenient and due remedy is provided." §

The corporation or close borough system found much favour with succeeding sovereigns. In the earlier feudal times the monarchs found the support of the boroughs useful when the barons could be controlled only by force of arms. When parliaments began to take shape the representatives of the boroughs were summoned to attend them, because the heavy contributions which these boroughs were expected to make to the national expenditure could be more easily obtained when voted by their representatives. Many years passed before they were allowed to take any part in matters of general importance other than that of voting supplies. By holding the purse strings they in time forced their way into a full participation in the general business, and then those kings who desired to control their parliaments found that the representatives of the boroughs might be as useful to them in the House of Commons as the armed burgesses had often been in the field.

For many years, only those boroughs which were called upon by the sheriff to do so sent representatives to parliament. The writ sent to the sheriff ‖ gave him authority to determine at each election what boroughs were entitled to representation. The sheriff appears to have made the selections capriciously, although it is not improbable that he received instructions from the court, and the boroughs, as they had to pay the expenses of their representatives, were in most cases willing to be passed over. In the reign of Richard II. eighty-eight boroughs, which had sent 176 members to the parliament of the previous reign, were not represented. In the reign of Henry the fifth six boroughs previously represented were without representation, and two not previously represented sent members to parliament. Henry the Sixth, in addition to all the boroughs represented in the previous reign, restored the representation to seven boroughs and gave representation to four others. The Tudors added very largely to the number of boroughs represented in parliament and in their time it became the rule that any borough, which was once invited to send a representative to parliament, should on every subsequent election, return a member to the House of Commons. James the First restored representation to sixteen, and created eleven others. Charles the Second was the last monarch to create a

* "Town" laws, as distinguished from national laws.

† The lowest class of feudal tenants, who were virtually fixed to the soil, so that villenage amounted to a species of serfdom.

‡ In A.D., 1439.

§ 8 Henry VI., chap. 7.

‖ The shire-reeve, or chief officer with authority over the shire as the town-reeve had over smaller divisions.

corporation entitled to representation in the House of Commons. The process of substituting close corporations for the old system of free borough government was carried on actively during the reign of the Tudors, and in order to make them more subservient to the monarch's will the members of the body corporate were no longer required to reside in the borough. Creatures of the court often formed a majority of the few who elected members of parliament, and to each borough was given a steward or patron, generally a nobleman of the neighbourhood, who named the person to be elected. The servile judges of those times in many cases relieved the sovereign from the trouble of creating corporations by deciding that where no incorporating charter could be found it must be presumed to exist.

If any change were made during the Commonwealth there is no record of it. The Revolution led to no improvement, and the Hanoverian succession brought no change. The ancient rights of the free inhabitants of cities and towns to govern themselves nowhere existed, and they appear to have been wholly forgotten.

The government of counties underwent almost as great a change. The tithing or township became in most cases a parish without much change in its system of government. But when it became a manor and the manor court took largely the place of the township court or mote, other changes quickly followed. The barons, wherever they had the power, took control of all local affairs into their own hands, the sheriff's office in many counties becoming hereditary. To counteract their power and assert his own the king sent his justices into the counties to adjust taxes, collect revenues, and administer justice in the more important cases. In the reign of Edward the Third the counties were divided into districts, and officers called justices were appointed to maintain the peace in each. Various powers were conferred on these from time to time, and various duties assigned to them. Thus gradually arose the court of quarter sessions, with criminal and civil jurisdiction and control of the fiscal affairs of the counties, and the courts of petty sessions. The right of the people to manage their own affairs, and the principle of representation in local matters were no longer regarded. For a time indeed the tithing or parish elected its constable, and the hundred its high constable who was the collector or receiver of rates, but even these relics of an older and better state of things finally disappeared. The parish elected its vestry, and vestries were in many cases employed in other matters than those relating to the maintenance and management of the church building: but select vestries resembling the close corporations in boroughs were in many cases substituted for the vestries elected by the ratepayers.

Representative institutions almost ceased to exist except in name. Even the House of Commons represented but a small portion of the people. The cities and boroughs of England sent 240 representatives to that house before the Reform Act of 1832. The total number of electors was but 126,761. These figures give but a faint idea of what the state of things really was. In some cities the number of electors was comparatively large, but in many it was very small. In Andover the electors numbered only 23; in Banbury 18; in Bath, with a population of 50,817, the electors numbered only 30; in Beaumaris 22; in Brecon 21; in Buckingham 13; in Calne, 19; in Marlborough only 11; in Portsmouth, with 50,389 inhabitants, there were only 49 electors; and so in many other cities and towns of considerable size.

Fourteen places deprived of the parliamentary franchise in 1832 had but 96,050 inhabitants altogether, and those sent 20 members to parliament. An election in most of those places was at that time a mere sham. The patrons of the borough, who were also the principal property-holders, selected the representatives. In counties the number of electors was relatively much larger, but elections were controlled there also by the great landowners, and although the election contests were often very fierce, they lay entirely between the Whig and the Tory landowners and their dependents.

The object of creating close corporations was to secure parliamentary control for the Crown. The powers vested in these corporations were in most cases very limited, and their members appear to have desired no more than to wield the judicial authority conferred by ancient charters, and to divide amongst themselves the revenues derived from lands, tolls, and dues. When it was found neeessary to provide for making and repairing streets and sewers, for cleaning towns, for a better watch and better light, for

a supply of water, or for the erection of docks or any other improvement, this was done by a special Act of Parliament creating trustees empowered to borrow money, carry out the work, and levy rates. To this is due much of the confusion that now prevails.

The duties of the tithing and hundred motes were largely judicial, and one of the rights or privileges most eagerly sought, or most strongly insisted upon, by the boroughs during their development was that of electing their own magistrates and trying in their own courts all accused of committing any crime within their boundaries. When they obtained new charters they sought to have this privilege enlarged, and prior to the great reform there were several boroughs in England which, in theory at least, possessed the right of trying before their own tribunals "all felonies not affecting life or member," and some that were authorized by their charters to try even those accused of capital offences. The criminal jurisdiction of the Quarter Sessions had also become very extensive. But for some time those powers had been in abeyance, and all accused of the greater crimes were sent to the assize courts for trial.

The passage of the Act reforming the House of Commons necessarily led to other reforms. The principle that the people have a right to real representation could not long be confined to Parliamentary affairs. One of the very first acts of the reformed Parliament was to reform the government of the cities and boroughs, and to abolish the close corporations which had been created in order to make Parliament at one time a mere machine for giving effect to the will of the monarch, and afterwards the mere creature of one or other of the aristocratic factions. A commission was appointed to enquire into the whole question. In their report they stated that there were 263 places incorporated, or possessed of prescriptive municipal privileges, and that only 178 of these were of sufficient importance to be reconstructed. In 1835 an Act to reform the municipal government of the 178, and to enable other cities and towns to obtain charters giving similar rights, was passed. This Act restored to the ratepayers the power of electing the councils of cities and towns, making all who paid rates on any dwelling, store, shop, or other tenement within the city and town, and who resided in the city or town, or within seven miles of it, electors for all municipal purposes. But this Act did not give to the mayor and council so elected the powers which, to make the reformation really valuable, they should have possessed. It provided only that the trustees appointed under sundry Acts of Parliament for paving, lighting, cleaning, watching, regulating, supplying with water, and improving certain boroughs, or certain parts thereof, might, should it seem to them expedient, transfer all the powers vested in them to the body corporate of the borough. That, in several cases the trustees preferred to retain those powers, is proved by the insertion of a similar clause in the Municipal Act of 1882. The Act provided also that certain boroughs should have a Court of Quarter Sessions, and a Recorder who should be sole judge in civil and criminal cases, the jurisdiction of his court being limited. In other cases a separate commission of the peace was to be issued, but no Quarter Sessions were to be held, and in such boroughs county justices also would have jurisdiction. In other cases the boroughs were to have no special commission. Much importance is still attached to the possession of judicial powers by boroughs, some English writers contending that municipal self-government cannot be regarded as complete where those do not exist. The persons who were known as freemen in the close boroughs were deprived of the right to vote as freemen at borough elections, and of the special privileges and exclusive rights to carry on business; but their right to share as before in the proceeds of certain borough properties, the right in some places to free education for their children, to "exclusive eligibility to certain charities," and other privileges, were carefully preserved, and although it was enacted that no person should thereafter become a freeman of any borough by gift or purchase, yet as the right of the freeman's son, and son-in-law, and apprentice, to obtain a place on the roll of freemen remained, there is no probability that this class will become extinct by efflux of time. To the people of this country it must seem strange that, when a great reform was attempted, all those special trusts were not extinguished, and that the mayor and council elected by the people were not clothed at once with ample power to govern the city fully and to do all its work; strange also, that the rights of those freemen, if rights they could be called, were not at once extinguished by purchase or otherwise. The composition of the council, as provided by the Act, is also

curious. The number of councillors elected in all cases must be a multiple of three, and, in fact, the number varies from 12 to 48. These elect the aldermen from their own body or from the qualified citizens, and the aldermen equal a third of the councillors in number. Aldermen and councillors sit together as one body, and elect one of themselves mayor. This strange system was adopted by Montreal in the earlier days of its municipal existence, probably because it was English.

Of the boroughs named in the schedule of the Act as too small to maintain a distinct municipal existence, a few applied for and obtained charters under the Act. The rest remained "unreformed boroughs," deprived indeed by the Act of much of their power, but still retaining control of the borough property, markets, etc., for nearly fifty years. Perhaps, they were forgotten for the greater part of that time. A resolution moved by Sir Charles Dilke in the House of Commons at length forced the Government to take action, and an Act was passed declaring that they were no longer boroughs, and transferring their property to the care of the charity commissioners. Some of the larger towns which had never been incorporated obtained charters under the Act of 1835, and this increased the whole number of boroughs under that Act to 240. But many large towns have never applied for a charter, either because none of their citizens care to take the trouble or to incur the expense, or because they are satisfied with the government of the local boards established under the provisions of the Public Health Act.

The powers possessed by the councils of cities and boroughs, as such, do not even now greatly exceed those possessed by the old close corporations. The private Acts passed from time to time being found insufficient to provide for the health and comfort of the rapidly increasing populations of the cities and towns, general Acts were passed under which the people of any town were authorized, having adopted such Acts at meettings called in the manner prescribed, to elect a Board of Commissioners to make certain improvements or perform certain services. Bodies known as Local Improvement Commissioners were thus called into existence in several districts. Acts to protect the public health were passed, in which it was assumed that the making, improving, repairing and cleaning of streets, the making and repairing of sewers, the lighting of streets, the supply of water, the superintendence of buildings and other local matters, should be entrusted to boards, known as Local Boards of Health. In several boroughs the Local Board was quite distinct from the town council, and possessed much more power. Besides these, the Vestries and the Boards of Poor Law Guardians exercised large powers, including the power of taxation, and in boroughs which had not Quarter Sessions of their own, the County Sessions levied taxes and exercised other powers. The Overseers of the Poor in several cases collected the taxes demanded in the precepts issued to them by the various boards under authority of the Acts of Parliament.

In 1871 an effort was made to bring order out of this chaos, and to make further necessary provision for the sanitary improvement of many districts by the creation of the Local Government Board, a department of the Government whose members are members of the Privy Council, and whose president and principal secretary hold seats in the House of Commons. To this board was transferred nearly all the authority previously exercised in local affairs by the principal Secretaries of State, the Privy Council, the Board of Trade and the Poor Law Commissioners. In 1872 the Public Health laws were amended by an Act to make the establishment of Local Boards all over England compulsory, and this was amended in 1873, and again in 1875, to render it more effective. The Act of 1875 deals very thoroughly with several important questions. The boards were to be distinguished as urban and rural authorities. Councils of boroughs, local boards wherever they already existed, and improvement commissions were to be *ex-officio* the urban authorities. In some cases the local improvement commissioners were merged in the local board. All the other districts were to be rural, and to be administered by the boards of poor law guardians. The borough councils would sit as local boards to discharge the most important of their duties. The powers and duties of the rural boards are not so great, but they are extensive and important. People dwelling in the country are now required to make proper drains and keep them in good order, to close wells into which sewage or other unhealthy matter may make its way, to provide a supply of pure water, and to take

other sanitary precautions. No new dwelling can be erected until it has been shown to the proper authority that sufficient good water can be had at a short distance.

The powers of the Local Government Board are very great, and in many respects very arbitrary. They determine what the boundaries of all districts outside the incorporated boroughs shall be, and they change the boundaries and divide or unite districts as they please. They send an inspector when they please to the meetings of any of the local boards, and they compel these boards to do, or they do through their own officers at the expense of the district, what they deem necessary. They appoint auditors to examine the accounts of all boards, except the councils of boroughs. No debt can be contracted, or improvement causing debt be made, in either the borough or the district without their approval, and no city or borough can promote or oppose any bill in Parliament without the assent of this board, as well as of a majority of the ratepayers. When they approve of the making of a loan they issue a provisional order, but in every case they must, at the next session of Parliament, procure the passing of a bill to authorize such loan and the increase of taxation which it involves.

In December, 1878, the whole number of urban authorities in England and Wales, including the 240 boroughs, but not including the metropolitan sanitary anthorities, was 945.

The County Courts of Quarter Sessions still exist, and their duties are not unimportant. They exercise limited jurisdiction in the trial of criminal cases; they determine who shall or shall not be licensed to keep taverns in all parts of the county outside the boroughs; they maintain and manage the county court houses and gaols; they maintain and control all the roads that are regarded as great general highways, and they maintain and control a police force in each county. The county police, it is said, has become an efficient force of late years, and efforts, successful in many cases, have been made to induce the smaller boroughs to unite in support of the county police, instead of maintaining a small independent force of their own. In several of the laws recently passed additional powers have been conferred, and additional duties imposed upon the Quarter Sessions. The abolition of toll roads, or turnpikes as they call them, have added to their duties. The parishes were required to maintain all the roads within their boundaries, except the turnpikes, and the county maintained the bridges. But when the toll-gates were abolished the parishes felt the burden of maintaining the disturnpiked roads too great, and in many cases they were neglected. Highway districts were created under the management of boards composed of one "way warden" from each parish and all the magistrates residing in the district. The county now contributes one-half the cost of maintaining such of the old turnpikes as are in charge of the parishes, and the government pay to the county one-half of its contribution to the parish expenditure; the government have also relieved the counties of the cost of establishing and maintaining prisons, of one-half the cost of establishing and maintaining lunatic asylums, and of one-half the cost of the police.

The history of the formation of the Boards of Poor Law Guardians, and a description of their powers and the manner in which they are exercised, would be exceedingly interesting, but fortunately the necessity of a poor law establishment on a large scale has never yet been felt in any part of Ontario. The history of the British educational system deserves the most careful consideration.

In creating all these bodies to do the work which should be done by the municipal authorities of counties, cities, towns and villages, each working in its proper sphere and clothed with ample authority, the Imperial Parliament proceeded without system, plan or principle, endeavoring to meet each necessity when it was urgently felt, and apparently without remembering in any case what had already been done, or caring what might be required in the future. The boards to which in these later times it gave such power seem to have been as incapable of systematic procedure, and to have acted as if the work entrusted to them could best be done by disregarding all conditions previously existing. Parliament, in its excessive regard for ancient privileges and prescriptive rights, excepted several places from the operation of its most important acts. Some boroughs are declared not to be boroughs for sanitary purposes. Some large towns, such as Birkenhead and Cheltenham, are neither boroughs nor local board districts, preferring to have their affairs managed by improvement commissioners elected under the Towns Improvement Act of

1874, and the Acts of which that is a consolidation and supplement. The boundaries of the parish are in many cases not coincident with those of the local improvement district, or the local board district, or the poor law union, or the school board district. The inhabitants of a borough may be governed by the town council, the vestry, the burial board, the school board, the poor law guardians, and the County Quarter Sessions; and persons residing in different parts of the same borough may be under different vestries, and other local authorities. The inhabitants of a local government district may "live in four different areas, and be under six different local bodies, five of which may be different for different parts of the same district." These bodies are "elected or appointed in different ways, levying rates on different principles of assessment, and employing for the most part different staffs of officers." "Much of the work of assessment, of rating, and collection of rates," says another writer, "has to be done three or four times over, and usually on different, and sometimes inconceivable principles, to the great injury and confusion of the taxpayers."

Birmingham has for some time been regarded as a model city. The Rt. Hon. Joseph Chamberlain, in an interview with two of your commissioners, described with natural pride the wonderful improvements made in that city within a few years under his guidance. A thorough system of cleansing and purifying the city was introduced. A crowded and squalid quarter of the city was cleared of its ruinous dwellings by use of the Artizans' Improvement Act; broad streets run straight through it, have since become flourishing business streets, and a large number of comfortable dwellings for artizans and labourers were erected on others. The city purchased the gas works previously owned by two companies, and gas is now supplied by the city at sixty cents per thousand, with a profit of £25,000 to £30,000 a year. A water company refused to sell its works, but yielded when the citizens adopted a bill providing for a compulsory sale; and by sinking additional wells and other means, an abundant supply of good water is provided. The city has also established technical schools, an art gallery, and free libraries on an extensive scale, and all these are largely attended. Yet, of this city we are told that it is placed at an angle where Warwickshire, Worcestershire, and Staffordshire meet; and that thirty years ago its area included six different local governing and rating bodies, all of which were happily extinguished by Act of Parliament obtained in 1851, that made the town council the sole authority. At present, the borough includes two parishes and part of a third. One of the parishes is self-contained as regards poor law administration, and has sixty-four guardians of the poor. Another of the parishes forms part of a poor law union belonging to the county of Worcester. The parish of which part is in the borough belongs to a third union. Each has its own rate of taxation, and its own machinery. The school board has another set of machinery, and elections at its own time. The city council has its own machinery, elections, and rates, so that there are five administrative bodies acting separately, and five sets of rates. There are also three different districts for the registration of births and deaths, and the registration of marriages is distinct from all these. Such is the confusion within the borough boundaries. But the population has grown so large that the town has passed over the borough boundaries on all sides. And although "the houses are continuous, the streets and roads lead directly out of one another, the same industries are practised in the manufacturing portions of the several districts, the same class of people reside in the suburban places;" although the whole is really Birmingham and all are Birmingham people, yet these districts have their own local boards and school boards, their separate systems of taxation, and their own scale of assessments, and necessarily do imperfectly what would be much better done by one central authority. It is stated that in all England, Nottingham is the only city that has within its borough boundary all that should properly belong to it. In this country such a state of things would not be tolerated; indeed, it could not exist.

To complete the confusion, the city of London remains unreformed. The parliament of Chester was abolished in the 16th century; the usages and forms, still preserved in the counties Palatine, serve but as reminders of what their organization originally was and what its purpose. But London retains its old system almost unchanged in full operation. It is said that 120 of the charters it obtained at various times still retain some force. Charles II. compelled the city to surrender these and accept a new charter, but William III.

restored the ancient charters. The Common Council, consisting of 26 aldermen and 206 councillors, appoints several city officers, and has immediate control of the revenues. Its committees act as commissioners of streets, sewers, markets, etc. The liverymen of the city guilds, acting under authority of special charters, take an important part in the election of mayor and in the government of the city. The Court of Common Hall, an assembly of the members of the guilds, who have taken out their livery, nominate the candidates for the mayoralty and elect the city chamberlain and other officers. The city authorities are conservators of the Thames. The city maintains its own police at a cost of £100,000 a year, and has its own courts of criminal jurisdiction, in which the mayor and aldermen are the judges. Judges of the superior court sometimes assist at the central criminal court. The mayor is also a member of the privy council and chief butler at the coronation. He lives in the Mansion House, has a salary of £10,000, and the city pays other expenses of the mayoralty, which in seven years have amounted to £10,000. The city derives a large revenue from its lands, including the Irish estates owned by its committees and by some of the guilds, from market and other fees, and the duties it still levies on wine, corn and coal, which in 1880 yielded a revenue of £438,946. Of this, however, part goes to the metropolitan board of works. It spends large sums on banquets. One entertainment to a royal prince costs £27,576. The total income, capital and current, in 1880, was £2,350,000. In the vast city, outside the boundaries of the city proper, the police force, numbering generally over 8,000, is controlled by the Home Secretary, who also appoints the police magistrates. The other municipal affairs are managed by the vestries of the parishes and by the metropolitan board of works, composed of three members appointed by the city council, two elected by each of the vestries of the larger parishes, and one elected by each of the smaller parishes, or of the districts formed by a union of parishes. In 1880 the total expenditure of the board on revenue and capital account was £3,841,262. Comparatively few of the inhabitants of London know anything of the men who control this great expenditure. The vestries lay down and repair "drains," repair streets and sidewalks, and attend to all the work that is of a local character. What their expenditures amount to we have not been able to ascertain. Under this strange system the great Thames embankment and the great system of sewers, which make London one of the healthiest cities in the world, have been carried out.

The expenditure controlled by this strange tangle of incorporated cities and boroughs, boards of poor law guardians, improvement commissioners, local government boards, school boards, and other local authorities is enormous, exceeding the total annual revenues of all but four or five of the greatest countries in the world. In 1874-5 the total revenue for all local purposes was £42,735,932. In 1884-5 it was £54,990,234, or about $270,000,000. This was made up of—

Public rates	£25,666,552
Tolls, dues, fees, rents, etc	5,825.578
Other receipts	12,357,051
Loans	11,141,053
Total	£54,990,234

Amongst the "other receipts" was £3,610,219 paid from the Imperial Treasury as subventions, £2,086,249 paid as water rates, and £3,302,119 paid for gas in the many cities and towns which now own and manage their own gas works.

Notwithstanding the large revenues from rates, dues, etc., there was so much to be done when the creation of the Local Government Board gave an impetus to sanitary and other improvements, and the growth of the cities and towns has since been so rapid, that it has been necessary to borrow largely. The debt of all the local government authorities in 1874-5 was £92,820,100, in 1884-5 it was £173,207,968.

Of the amount borrowed, £9,853,795 was expended on highway and street improvements, water works, elementary school buildings, harbors, docks and piers, gas works, poor law purposes, county purposes, bridges and ferries and tramways. The largest of these expenditures was for highway and street improvements, £2,417,975.

The expenditure during the year 1886-7 so far as it was not defrayed out of loans, was :—

Relief of the poor	£6,801,656
Paupers, lunatics and asylums	1,469,843
Police	3,487,933
Education	3,190,851
Highways, street improvements, etc.	5,439,166
Gas works	2,429,148
Public lighting	867,083
Water works	792,624
Sewage, etc.	916,671
Harbour, docks, etc	1,181,023
Other public works	435,168
Private improvement works	512,515
Principal and interest of loans	9,878,531
Salaries, etc.	1,418,397
Establishment charges	389,872
	£44,053,804

It is not believed that much of these enormous sums is misspent or wasted except in so far as waste is necessarily caused by the multiplication of rate levying, and money-spending authorities. Of corruption and fraud little is ever heard, and there is reason to believe that these vast revenues are honestly if not always wisely administered. Still that a great reformation in local government is absolutely necessary all parties admit.

We have examined several treatises to discover what remedies have been proposed, and what may probably be adopted. In no case did we find the remedies proposed satisfactory or sufficient. The reverence for what are considered vested rights, the respect for ancient usages, however obsolete or absurd, the superstitious fear of changing what is old, or of adapting boundaries, areas, etc., to the circumstances of the times which have done so much to make the legislation of the Imperial Parliament a mass of confusion in the past, influence even the most radical of the English writers on this subject. The simple methods which would at once sweep away completely all that is unnecessary, contradictory, and complex, create convenient areas while adhering in a reasonable degree to old boundaries, create a single authority in each area, clothed with sufficient power for the management of all its affairs, and make those who wield that authority directly responsible to the people, seem to possess some incomprehensible terrors for all who approach this subject. It is said that the Salisbury Government are prepared to introduce a scheme of reform, and that this has the approval of the party known as Unionists. We have no reason to expect that it will be the simple, comprehensive, reasonable scheme which would practically setttle this great question. The people will have cause to rejoice if it go much further than previous reforms have gone, towards giving them a real control of their affairs, and reviving that interest in local government which is admittedly less keen and intelligent still than it was a thousand years ago.*

Scotland.

In the cities and boroughs of Scotland, as in those of England, the magistrates and town councillors were in the earlier days chosen by the resident burgesses and the proprietors of houses and lands within the borough. Between some of the principal boroughs unions were formed for the promotion of commerce. In 1469 close corporations were created in all the cities and boroughs by an Act of the Legislature. The members of the councils then appointed were invested with the power to elect their successors, and an Act of 1474 ordained that at least four members of the old council should be "annually chosen into the

* Since the text of this report was written the president of the Local Government Board has introduced into the Imperial House of Commons a local government Bill, which, if it becomes law, and if its tenor has been correctly given in summaries contained in cable despatches, will remove many of the anomalies above referred to, and place municipal government on a really popular basis in both boroughs and counties.

new council." The immediate object of this was, as in England, to give to the Government the control of the elections of the representatives of those boroughs in Parliament. Another effect of it was that the members of the council learned to regard the property and revenues of the boroughs as their own. An old writer* says: "Every city or burgh had certain estates in lands, houses, fisheries, post dues and other valuable sorts of property, the revenue arising from which was by their original charters and constitutions destined to be applied for the benefit of their communities. But as soon as the magistrates acquired the power of electing themselves in perpetuity they administered, embezzled, and dilapidated their estates at pleasure." Of all the Scotch cities, Edinburgh was the only one that had a representative to itself after the Act of Union. By that Act other cities and boroughs were arranged in groups of five or four. Each member of the group chose a delegate, and those four or five delegates elected the member of Parliament. But the number of electors who chose the delegates was small, in some cases only nine, and in only one case exceeding thirty. The total number of electors in Edinburgh was only 33. The total number of electors in all the other boroughs was 1,220, and these elected fifteen members to Parliament. The numbers of electors in the counties were relatively even smaller. The qualification prescribed by an Act of James I. of England, was a forty shilling freehold "of the ancient extent," and the words "ancient extent" were so interpreted that only persons possessed of a considerable amount of property in freehold were electors. The total number in all the counties entitled to elect representatives in 1812 was only 2,354. Thus, only 3,754 electors were permitted by law to take part in the election of all Scotland's 45 members of Parliament.

In Scotland, as in England, it was found necessary to pass several special and general Acts of Parliament to provide for the proper sewerage, drainage, lighting, etc., of cities and towns. The most important of the general Acts was that of 1830.

The reformation of boroughs in Scotland was begun very much as in England, the chief reform being the restoration to the resident ratepayers of the right to elect the councils of the cities and boroughs. In one respect, considered very important, the government of the Scotch boroughs differs materially from that of the English. The town council choose from their own ranks a Provost and a number of Baillies, proportionate to population, and these are the magistrates of the borough, and act as "Commissioners of Supply." A stipendiary magistrate has been provided for Glasgow by a special Act of Parliament,† but in all the other boroughs the elected magistrates try the ordinary justice court cases, the sheriff giving some assistance in Edinburgh.

Of the Scotch boroughs seventy claim to rank as Royal because their charters were granted by the Crown. Twelve boroughs, with large populations, are divided into wards. The members of the council number from sixty in Glasgow to some half a dozen in the smaller boroughs. The opening and improvement, the cleansing and lighting of streets, and the making of sewers were formerly carried on by trustees under special Acts or by special commissioners, but these have in most cases transferred their powers to the councils, who, however, do not wield all those powers as the councils of the boroughs. Their members sit as police commissioners, borough road trustees, local authorities under the Public Health Acts, the Weights and Measures Acts, etc., as circumstances require.

The expenditures for sanitary purposes under the Act of 1867 have been considerable, and have been productive of much good. The total expenditure for these purposes from August, 1867, to May, 1881, was £1,572,417, of which £199,028 was expended upon drainage, £522,982 upon water supply, and £246,541 upon hospital accommodation.

The police force in the Royal boroughs is under the command of acting constables, appointed by the magistrates and town council. The small boroughs, called police boroughs, have in most cases united with the counties for police purposes. Many of the smaller towns have availed themselves of the provisions of the Act of 1830, passed to provide for the better watching, cleansing, and lighting of towns and populous places, and of a similar Act passed in 1862. Those towns which have availed themselves of either of those Acts, and are not Parliamentary boroughs, are designated police boroughs. There are ten such boroughs and they are governed by police commissioners numbering from six to twelve,

* Oldfield's "Representative History." † 38 and 39 Vict., chap. 81.

who are elected by the ratepayers, and who have power to levy assessments for sanitary and police purposes.

The expenditure in all cities and boroughs is met. as far as possible, out of what is called the "Common Good," that is the revenue from the town property, and the tolls levied on goods that enter the town for sale. A toll, called the "Causeway Mail," was levied on all wheeled traffic passing over the streets, but the abolition of this, made optional in 1870, was made compulsory in 1878, when the tolls on all roads and bridges throughout the country was abolished by Act of Parliament. What more is required for borough expenditures, and to meet the borough's share of land tax, the maintenance of militia buildings, and other local outlays is raised by a rate levied in the usual way.

The union of boroughs, formed some six hundred years ago for mutual support and for the protection of commerce, still exists in form. A convention of royal boroughs, represented by one member and the assessor from each, meet in Edinburgh every spring to discuss matters of common interest.

The trade guilds, which in the English boroughs often sought to exercise complete control and sometimes, countenanced by the Sovereign or the baron, succeeded, appear to have retained some remnant of their influence longer in Scotland. In the reformed councils of Edinburgh, Glasgow, Dundee, Perth, and Aberdeen, the Dean of the Guild brethren of the city claims and occupies *ex-officio* a seat. Some years ago some of the citizens of Aberdeen sought but failed to exclude the Dean of Guild from the council of that city.

The county organization is still very peculiar. One of the chief county authorities is that of the Commissioners of Supply, whose members are neither elected nor appointed, but act in virtue of their being owners of land and heritages to the value of one hundred pounds and upwards. The eldest son of a proprietor whose rental is £400 a year or more, may act as a member, and the factor or agent of a proprietor whose rental is £800. The Commissioners annually elect a chairman, who is called the Convener of the county. Originally this board collected the national revenue, including customs and excise duties. Now they levy the land tax and the assessments for general county purposes, manage the county police, dispose of appeals under the Valuation of Land and Heritages Act, and have charge of the militia organization. They complain of having to provide militia stores and accoutrements. The character of this body has not been changed. The county officials, who, it seems, are appointed by this body, are the clerk of supply, the treasurer, collector, and auditor. Under the Act 42, Geo. III., a Lord-Lieutenant is appointed in each county, and he nominates justices of the peace, who try cases of petty assault and other breaches of the peace, take affidavits, sign warrants, and in some districts, assisted by nautical assessors, hold courts of enquiry into shipping disasters. They have control of the licensing system, and before them all offences against the license laws are tried. They are also the local authority under the Weights and Measures Act of 1878. There is a right of appeal from the decisions of individual justices to the court or quarter sessions of all the justices. The clerk of the peace for the county, who is appointed by the Crown, acts as legal adviser to the justices.

The sheriff holds a very important position in Scottish counties. The sheriff principal, who in some cases holds the position in more than one county, acts through the sheriffs substitute, who must be lawyers of not less than five years' standing. They are statutory judges under the Registration of Voters, the Police, Lunacy, Education, and Public Health Acts, conduct the elections of members of Parliament, and have *ex-officio* seats on all the county Boards. The prosecutor in the sheriff's court is the procurator fiscal, who is appointed by the sheriff with the approval of a Secretary of State. There is also a procurator fiscal in the justice of peace court. It has often been asserted that justice halts in England and in this country because there is no officer in either whose duties are precisely analogous to those of the procurator fiscal.

Another inportant county organization is that of the road trustees, in whom is vested the management of all the roads in the county and in boroughs whose population does not exceed 5,000. The trustees are the commissioners of supply, and representatives from each parish and borough, who number two from each parish or borough in which the number of ratepayers does not exceed 500, three from each exceeding 500 but under 1,000, and four

from each over 1,000 ; they are elected once in three years. The trustees elect a county Board of 30 members, and have the right to levy rates. There have been many changes in the composition of this body, and there is still much dissatisfaction, although the principle of representation is now less grossly violated than it was for many years.

There are besides boards dealing with lunacy, prison, police, weights and measures, land valuation, registration of voters, court houses, and contagious diseases of animals. Scotland is divided into 22 lunacy districts. The boards for the management of these, under a general board of commissioners, are appointed by the Commissioners of Supply, the magistrates of the county, and those of royal and parliamentary boroughs. The prisons now maintained by the government are managed by commissioners appointed by the Crown, but the county authorities appoint a visiting committee. Police affairs are managed under the County Police Act of 1857, by a police committee appointed by the Commissioners of Supply, on which may also sit the representative of any borough joined to the county for police purposes. The committee appoint, subject to the approval of a Secretary of State, a chief constable who has the selection, control and disposal of the rest of the force. An inspector, appointed by the Crown, inspects the force once a year, and when he certifies that it is efficient one half the cost of its maintenance is paid from the Imperial exchequer under the Act of 1875.

The justices in Quarter Sessions appoint the inspectors of weights and measures. The Contagious Diseases Act is administered by a board composed of Commissioners of Supply nominated by the whole body of farmers elected by such of that class as occupy land of over £100 yearly value, and of owners of land worth £50 a year. The Lord-Lieutenant, the Convener of the county and the sheriff are *ex-officio* members of this board. In towns the magistrates and town councils form the local authority.

The sheriff, clerk and county assessor make up the list of qualified parliamentary electors. The commissioners of supply and the magistrates of royal and parliamentary boroughs appoint an assessor to make up the valuation roll for assessment purposes. Generally the actual rent is taken as the basis. Rates to cover such portions of the expenses in all these cases as fall upon the county are levied by the commissioners of supply.

But the chief organization in the rural districts of Scotland has for centuries been parochial. The civil does not in all cases coincide with the ecclesiastical parish, but the cases in which they vary are few. How old the parish boards are no one can tell. In the seventeenth century there were 980 parishes in Scotland, but several of these were afterwards amalgamated. In parishes of which the area was very large, or in which the population became dense, divisions for convenience were introduced and were known as *quoad sacra*. For poor law purposes the old civil parish limits are adhered to. The Education Act of 1872 recognises, for convenience sake, the *Quoad Sacra* divisions.

In the old Scottish parish the heritors supported the kirk, manse, and burying ground, and a school and teacher. The clergyman took part in the management of the school. The first powers of assessment for poor relief were conferred on the kirk session about 1600. In royal boroughs the magistrates shared in the management of the poor. In landward parishes the heritors and kirk session had charge of them. At present the Poor Law * is administered by Boards composed in eight burghal parishes of four persons nominated by the kirk session, and four by the magistrates, and of members elected by the ratepayers, varying in number according to the population from four to twenty-five. In non-burghal parishes the board is composed of all owners of land or heritages in the parish of the yearly value of £20 upwards, from one to six members elected by the kirk session, from two to five members representing the magistracy, if there is a royal borough within the parish, and members elected by the ratepayers, according to their numbers. The heritor may act by mandatory. A Board of Supervision consisting of the Solicitor-General, the Lord Provosts of Edinburgh and Glasgow, the sheriffs of Renfrew, Ross, and Perth, and three persons appointed by the government superintend those boards. This seems an exceedingly complicated system, and the complication appears to have arisen altogether from the excessive respect for old usages and vested rights that characterizes so much of the legislation of the Imperial Parliament.

* Of 1845.

Parochial Boards are also charged with carrying out the provisions of the Public Health Act in the landward parishes. They are required to provide for the inspection and removal of nuisances, to take steps for preventing the spread of disease, to erect hospitals when needed, to regulate common lodging houses, and to attend to sewerage, drainage, and water supply. The money requisite for these purposes is levied and collected with the poor rate.

It is evident that although the municipal government of Scotland is not so utterly chaotic as that of England, there is much room for improvement in it also. Numberless amendments have been proposed, but in no case have they as yet taken the shape of a comprehensive scheme, systematizing and simplifying what is now so complex and confused. The chief difficulty of those who have given much attention to the subject, appears to be that of giving sufficient protection to property, and especially to property in land with full popular participation in the rights of local self-government. Both in England and in Scotland there appears to be a morbid dread of giving to village communities control of the rates, which must be paid chiefly by the large land owners and large farmers. Indeed, some go so far as to assert that the proprietors ultimately pay all the rates, unless where the tenant has a long lease at a low rent. Little or no difficulty on that score is experienced in our municipalities.

Ireland.

From the time of the invasion under Henry II., the character of the boroughs in Ireland, and their history, resemble very much those of the English boroughs. Indeed the inhabitants of the boroughs, or at all events those who managed their affairs, were for many generations mainly English or the descendants of Normans and English. Several places of little importance were often called on to send representatives to Parliament, in order to support the government against the large landed proprietors of the Pale, who sought to become independent of the crown in all but name. Afterwards the close corporation was found a useful instrument. At the time of the union the right of many small boroughs to send members to parliament was abolished, and for this the great landowners were compensated by large cash payments, as if for loss of property. The corporations, however, continued to exist, the heads of the corporations of the smaller towns being known as sovereigns, provosts, port reeves, bailiffs, etc. The close corporation was more offensive than in England, as Catholics, who formed the great majority of the population in nearly all the cities and towns, were completely excluded. In Ireland, as in England, a great number of special acts were required to provide for carrying on local improvements and cleaning streets and sewers, etc., and general acts were passed to give to cities and towns opportunity and power to provide in a general way for such services. Under one of these Acts, passed in 1828, several towns elected commissioners. On the requisition of twenty-one inhabitants dwelling in houses worth £20 a year, a meeting was called at which residents dwelling in houses worth £8 a year were entitled to vote on the adoption of the Act. These were high qualifications in the smaller Irish towns. It was not until 1840 that an Act was passed to reform the government of Irish cities and towns. This swept away the close corporations, but in other respects it was not so liberal a measure as the English Act of 1835. Only a male British subject of full age, who had been resident in the city or borough for six calendar months before the list of electors was made up, and who as tenant or owner had occupied for at least one year before the last day of August in each year a house, warehouse, counting house or shop, in part or in whole, of the yearly value of ten pounds for the part so occupied, and who had paid all rates, was entitled to vote. Efforts to reduce this high qualification were repeatedly made in parliament. They were long unsuccessful. In 1876 this and other matters were referred to a select committee, and in 1878 a reduction to a £4 poor law valuation was recommended. This would have been but a partial remedy, and a large proportion of householders, especially in the small towns, would still have been excluded from the franchise. In Dublin the franchise was assimilated to that of English cities by the Act of 1849, and in

towns which adopted the Improvement Act of 1854, the qualification of electors was made the occupation of a house rated at £4. The constitution of the borough councils was different from the English. The burgesses elected the number of aldermen and councillors fixed in each case by the Act. In Dublin it was 60, in Cork 51, in Belfast 34, and the one-fourth of the elect in each ward who received the greatest number of votes were the aldermen; the term of office was then three years. After the first election held under the Act, one-third of the councillors were re-elected every year, and one-half the aldermen went out every three years. Aldermen and councillors elected the mayor from the council annually. The burgesses of the whole borough elected two assessors and two auditors every year from the burgesses possessing the qualification of councillors. Any town having more than three thousand inhabitants could apply for a charter under this Act, and in all boroughs and towns that became incorporated the powers previously held by commissioners elected under 9 George IV. were transferred to the borough councils. Trustees holding such powers under special Acts were authorized, but not required, to surrender their powers to the council, and many exceptions were made. The Blue Coat hospital was withdrawn from the control of the Dublin corporation, and a corporation was created for its management. The rights of "the governor and assistants of London of the new plantation in Ulster," were reserved; so were the rights of those who held manor courts in any of the boroughs. The recorder of Dublin received the powers previously exercised by the Dublin sessions court, and courts of requests or of conscience for the recovery of small debts were continued or established. The borough councils were empowered to pass by-laws for good government, the suppression of nuisances, etc., but the limits of their power in this respect were narrow, and no by-law had effect until forty days after a copy had been transmitted to the Lord Lieutenant, by whom it might be disallowed. With a few exceptions, the officers appointed by a borough council may be displaced by the Lord-Lieutenant without compensation. Few towns sought incorporation under this Act, and other Acts were found necessary. The principal of these are the Towns Improvement Act of 1854, and the Local Government Act of 1871. One of the chief additions to their powers obtained by the councils of cities is that of nominating three persons each year, from whom the Lord-Lieutenant must select the sheriff. The right to assume the control of works previously managed by county authorities is also important.

The administration of the fiscal affairs of Irish counties differs widely from the English and Scotch systems. There are no county Quarter Sessions as understood in England. Instead, a court is held periodically at each of the towns in a county or riding, at which indictable offences, except certain felonies, are tried, and all matters relating to the giving, continuing, or withdrawing of tavern or public house licenses are determined by such magistrates as choose to attend, presided over by a barrister holding a life appointment, who is called the chairman or assistant barrister. All the criminal cases are tried by a jury, after a bill of indictment has been found. The barrister sitting alone as judge tries civil actions for debt under £20, and other minor civil causes. Each county is divided into petty sessions districts, in which the magistrates hold court usually once a week, and some cases can be disposed of summarily by a single magistrate.

The fiscal authority is the Grand Jury of the county, which sits twice a year, meeting to dispose of fiscal matters some days before the assize court is opened. The members of the grand jury are selected by the sheriff, who is bound to take one £50 freeholder or £100 leaseholder from each barony, or division of a barony. If these do not number 23, he may find the others possessing a like qualification where he pleases. The grand jury so selected appoint the county surveyor, the county treasurer, the baronial high constables, who are the collectors of county rates, and other officers. They decide upon the recommendations made by presentment sessions, determine what works shall be done or repairs made, and decide what rates shall be levied to meet the cost of these, and to cover what are called the imperative presentments, *i.e.*, for the support and conveyance of prisoners, the payment of interest and sinking fund on moneys lent to the county by the government board, &c., and other county expenditures, and they audit and pass the accounts. Unless while the grand jury is in session the municipal affairs of the county are entirely in the hands of the county officials. Application may be made to the judge of assize to set aside any

order made by the grand jury. The presentment sessions is composed of such of the magistrates of a barony as choose to attend on a day named, and of a few of the principal ratepayers nominated by the grand jury at its previous session. It would be absurd to call such a body in any sense representative, yet it recommends the expenditure of large sums, and the rate of taxation in each barony is largely determined by its recommendation. It is matter of never ending surprise, that with such a system the Irish roads should be as they are, as fine as any in the world.

The police force in Ireland is really a military body, and except, perhaps, the Dublin police, is entirely under the control of the government. It numbers about thirteen thousand men, uniformed, drilled, and fully armed, who live in barracks, and are moved from station to station as the police authorities appointed by the Lord-Lieutenant direct. For some time after this force was established under the Act introduced by Sir Robert Peel, then Irish Secretary, the counties and boroughs contributed to their support; but it has since been made more completely an army of occupation, and the entire charge is now borne by the government. When an additional force is for any reason sent to any district, the cost is charged to the district, and the grand jury are required to include the amount in the sum they order to be assessed. The government also appoint a number of stipendiary magistrates, to whom districts are assigned. These are in constant communication with "the Castle," and do such special work as is assigned to them, such as presiding over evictions and suppressing proclaimed meetings. The police attend the petty sessions, make arrests under warrant or judgment, take charge of prisoners, and perform other functions under instructions from the magistrates.

The national school system is completely controlled by the Castle Bureau. There are a number of unpaid commissioners supposed to represent the different religious denominations, whose duty it is to determine what the education shall be and to give some direction to the system, but the actual control resides for the greater part in the paid officials.

The Poor Law system was not introduced into Ireland until 1838. It is managed largely by the Local Government Board, which is a branch of the Irish Secretary's department. The country is divided into unions, not of parishes, but of districts, which do not conform to the boundaries either of parishes or of counties. There is a board of guardians for each union, composed of three elected for each district by the open voting-paper system, and of *ex-officio* magistrates, who are magistrates selected by the government, and equal to at least one-third of the elected guardians in number. The guardians regulate admission to the work-house and outdoor relief, make a valuation by their own officers, levy such rates as are necessary and appoint the union officials. But they are much under the control of the Castle authorities, who, under some circumstances, may dismiss the whole board and appoint paid guardians to carry out their orders.

Ireland is also divided into lunatic asylum districts, the local authority of which consists of a board nominated by the Lord Lieutenant the management being chiefly in the central authorities. There are thirty-one harbour districts, in some of which the authorities are elected by the ratepayers; in others the authorities are partly nominated, partly elected. The gross revenue of all the harbours in 1879 was £486,453, and £200,000 was spent in improvement and maintenance. Local drainage boards elected under the Act of 1863 c. 88, carry on arterial drainage to some extent with money lent by the treasury to be expended under the supervision of the board of works. The boards are authorized to levy rates on the lands benefited to pay off the loans with interest in twenty-two years. There are also four navigation districts in which local boards control the inland navigation routes. A system of medical relief through free dispensaries was transferred from the counties to the poor law unions in 1851. The poor law unions are divided into dispensary districts managed by a committee, the number of which is fixed by the local government board. There are 1,088 dispensary stations attended by 800 medical officers and 260 assistants.

The total taxation of Ireland for local purposes in 1879 was £3,368,113. This included little or nothing for schools or police. The Imperial government spent in that year on services, local in their character, £2,384,045, of which £1,097,192 was for

police and £571,296 for schools. The expenditures under these heads have since been greatly enlarged.

Even in local matters Ireland possesses little power of self-government. Indeed outside the cities and boroughs self-government nowhere exists unless in the Poor Law Boards, and these have really little freedom of action.

MUNICIPAL INSTITUTIONS IN EUROPE.

We endeavored, in order to discharge fully the duties entrusted to us, to ascertain to what extent local self-government exists in the principal countries of continental Europe, and whether there is any thing in their municipal laws which it would be well for this Province to adopt.

Germany.

As soon as society emerged from the flood of barbarism in which the Roman Empire was submerged, free cities and chartered cities and boroughs rose and played an important part in Italy, Spain and France. At a later period the cities of Holland and Belgium (the Low Countries) took a large share in the making of history. If, as some contend, the Anglo Saxons did not merely engraft their own principles upon the municipal system established by the Romans in Britain, but brought with them the germ of our free municipal system, it would be interesting to ascertain what has been the development of that system in the countries in which it is said to be indigenous. Cologne and Treves retained much of the Roman system long after the power of Rome had passed away. In the other cities of the once formidable Hanseatic League perhaps the system was purely German. But we have not been able to learn much of the merely municipal government of Hamburg, Lubec, and Bremen, which maintained their independence until they were absorbed by the lately formed German Empire. A gentleman who spent some time last summer in Berlin gave us some interesting information as to the municipal government of that city. It corresponded with what we are told of the system which Frankfort on the Maine adopted in 1867, and which is said to be Prussian. The electors of that city choose fifty-four representatives for a term of six years to manage their municipal affairs, and every two years a third of the number retire, but these are eligible for re-election. The fifty-four representatives elect twelve town councillors, six of whom receive a salary and serve twelve years, while the other six receive no salary and serve six years. The chief burgomaster is nominated by the king, and the second burgomaster must receive the king's recognition. We have not seen a description of the powers and duties of the council. In Switzerland, notwithstanding the many constitutional changes which have taken place in that country, and its subjection at one time to French and at another to German influences, the smaller cantons still hold public assemblies of the whole people for the election of officers, and for the performance of all their public duties. An eminent English historian thinks that this is a survival of the old Teutonic system, others contend that it is Scandinavian; but small communities carried on their public business in some such fashion even in a much more remote antiquity.

France.

The French system of the present day is the very antithesis of the English in many respects. The great Revolution swept away all old customs and usages, and all traditions and old time ideas. The country was mapped out anew on strictly mathematical principles, and a system of government supposed to be thoroughly scientific was framed. Old customs and usages, it is true, were not easily extinguished, but no respect was paid to

them by those who made or administered the laws. At the same time the difficulty which the ownership of the land by a few seems to create, was removed by the distribution of nearly all the lands amongst millions of small proprietors. The system might have worked admirably if the Government whether Republican, Imperial, or Kingly, had not thought it necessary for its own maintenance to obtain control of all the municipal bodies. The desire for centralization appears to be quite as strong under the Republic of to-day as it was when Napoleon the First or the Third was emperor. That the system works well, despite this centralization, seems to be proved by the condition of the streets and sewers of the cities and of the highways throughout the country.

France is now divided into 87 departments, 362 arrondisements, 2,865 cantons and 36,000 communes. The prefect who is the chief officer of the department is appointed by the government. He controls the police, maintains order, collects taxes levied by the general government. He is assisted by a council-general elected by universal suffrage and a council nominated by the government. The council general assess taxes, authorize the sale and purchase of property, authorise new roads, railways and canals, vote the budget for charitable and sanitary institutions of the department, and under the law of 1872 are clothed with large political powers.

The sub-prefect exercises similar powers in the arrondisement on a limited scale, and he is assisted by a council composed of one member from each canton.

Each council has its commissary of police, who is appointed by the prefect for towns of not more than six thousand inhabitants, and for large towns by the central government. He is supposed to be under control of the mayor, but "he is at once a governmental, judicial, and municipal agent."

The commune is the administrative unit. The mayor is head of the commune. If the inhabitants number 2,500 there is one deputy mayor, if more than 2,500 and less than 10,000 there are two. In towns of from 10,000 to 30,000 there are three deputies and for every additional 20,000 there is another deputy. The mayor represents the central power in the commune and is registrar of births, marriages and deaths. In large towns he is appointed by the central government, but he must be chosen from the council of the commune elected by universal suffrage. This council has the same power and privileges with regard to the officers of the commune that the council-general has in the department.

The French farmers, who are very frugal and careful of their money, probably take an active interest in the affairs of commune and department, while willing that in matters of general government the instructions issued by the general government to prefects and mayors should be carried out. It may be that pressure from the central authority, although essentially objectionable, serves a good purpose in so far as it causes them to undertake works of improvement from which if left to themselves they may shrink. How the system works in cities cannot easily be learned. Paris is admittedly the model city of the world in many respects. Its streets are the finest and cleanest, its public buildings, quays and bridges the most beautiful, its places of recreation admirably kept. The districts which for ages bred pestilence and revolution now rival the finest parts of the city in magnificence. There is nothing in modern Europe to compare with its excellent system of sewers, by which the sewage is carried far below the city, and the Seine is kept so free from defilement that the washer-women ply their vocation in barges moored off the quays. How much of this is due to the system, how much to the genius of the people, how much to the pride, ambition or public spirit of the rulers it would be difficult to tell. But when the cholera visited the south of France, a few years ago, the condition of some of the large cities in that quarter was said to be unspeakably filthy.

Paris is divided into 20 arrondisements, and each arrondisement into four divisions. Each division elects one member of the municipal council. The functionaries of the arrondisement are a mayor and three deputies nominated by the Prefect of the Department of the Seine. The deputies act as registrars, and preside over the poor relief bureau. A justice of the peace is appointed for each by the government. The city has no mayor. The council elect a president who merely acts as chairman of their meetings. When it seems necessary, the Prefect discharges the functions of mayor. The municipal

council discuss and vote the budget, but they have no power to refuse to make appropriations for any service, the maintenance of which legally devolves upon the city. Should they attempt to refuse, the Minister of the Interior may, of his own authority, insert the item in the city budget. He may also appeal to the head of the state to cancel or disallow any decision in which the council exceed their legal powers. The Prefect of the Seine, besides the duties discharged by other prefects, controls important municipal services. Elections, rates, municipal debt, city schools, public lands, municipal buildings, markets and market places (in respect to the collection of dues) cemeteries, roads and streets, public edifices, water works, sewers, promenades, and plantations, river navigation and river ports, pawn offices, and the relief of the poor are all under his control. A prefect of police, whose authority extends over the whole department, is also appointed by the government. The police force controlled by him are divided into three sections—political, of public safety, and administration. The service costs about £800,000 (four million dollars) a year, and of this the government pays two-fifths. The municipal section deal with public health, civil order, and repression of crime, and exercise surveillance over lodging houses, the insane, street walkers, over the markets, the fire department, public vehicles, sanitary arrangements, cemeteries, interments, etc. The prefect of police has under his command 8,500 police officials, 1,242 firemen, the Republican guard numbering 3,295 men, and a mounted force of 726.

The expenditures, which are all voted by the municipal council, amounted in 1882 to £10,489,373. A large part of this goes to the extinguishment, by payment of terminable annuities and otherwise, of the enormous debt of £171,730,965 created chiefly to pay for the extraordinary improvements made by Baron Haussman, who, when Prefect of the Department of the Seine, transformed a great part of the city by command of Napoleon III. The emperor, it was said, was influenced quite as much by military as by sanitary considerations. The chief expenditures besides the interest on the debt are :—

Police	£950,000.
Streets	999,000.
Education	890,000.
Poor Relief	795,000.
Water Works and Drainage	520,000.
Public walks, plantations, lights	392,000.
Collection of octroi	296,000.
Mairies and councils	337,000.
Architecture and arts	212,000.

The chief sources of revenue are the octroi-taxes* on the food, the beverages and other liquors, the fuel, building materials, wood, and fodder that seek a market in Paris. The total revenue from these sources was £5,996,802 in 1882. Nearly one-half—£2,566,118—was yielded by the taxes on beverages. The communal centimes yield £948,805 ; the city's share in the profits of the gas companies, £604,000 ; and the duty on gas, £225,250 ; water rates amounted to £442,867. The revenues from cab stands, markets, slaughter houses, the citizens' street cleaning tax, (£108,416), warehouses, charges for paving, for cleaning sewers and streets, government subsidies, etc., make up the rest of this vast income of some fifty millions of dollars a year.

In the work of maintaining and cleaning the streets 320 overseers, engineers and time keepers, 2,123 pavers and roadmen, and 3,185 scavengers were employed. The maintenance of the streets cost £406,800, the pavements and sidewalks £62,224, and cleaning £259,840. The streets are nearly all paved ; the great thoroughfares and the crossings being laid with Belgian porphyry. Some streets are metalled, some are laid in asphalt, and a few in wood. 5,070 plugs furnish water for watering and cleaning the streets. The sweeping of the streets is the duty of the householders, but they generally pay a commutation tax for street services.

*Very similar in their nature to our market fees, but collected at the city gates as tolls are collected here on highways.

The supply of water for domestic purposes is obtained from a number of small rivers and from other sources, and is abundant and good. Although the main sewer system is so good, some 70,000 houses still depend on the services of the public scavenger for the removal of night soil, etc.

We have not heard of any change in this system proposed in any quarter, except that the majority of the municipal council of Paris continue to demand that their city shall have a mayor clothed with the powers needed for municipal purposes, now vested in the prefect. It is said that they will endeavour, in proof of their earnestness, to prevent the prefect and his staff from establishing themselves in the new Hotel de Ville. As their objects are said to be revolutionary, there is no probability that their demands will be complied with.

There is not much in any European system respecting which we have been able to gather information, that the people of this province would care to adopt even as an experiment, although probably much may be learned from the manner in which the principles on which such institutions must rest everywhere are worked out in some of those countries.

MUNICIPAL INSTITUTIONS IN AMERICA.

United States.

We find a more profitable field for enquiry in the United States. From that country we have more immediately received our system, at least in outline. The circumstances of the people of that country more nearly resemble our own in urban and in rural districts, and we may reasonably conclude that whatever works satisfactorily amongst them is not wholly unsuited to us.

The township system, as distinguished from what is sometimes called the county system, was adopted in New England from its very first settlement. How this came to pass nobody seems precisely to know. That system had become obsolete and almost forgotten in England, and there appears to have been no attempt to restore it during the time of the Commonwealth. Still it was admirably adapted to the religious system of the Independents or Congregationalists, who were the first settlers, and to the character of the region in which they settled. The first settlements were hamlets, in which the one meeting house served for all religious and civic assemblies. Residence within half a mile of the meeting house was the civil qualification for taking part in the management of the affairs of the town. As new settlements grew up the same necessity for combined action produced the same results. The union of towns in time followed; the county and the towns were represented in the general assembly. In Virginia, a very different class of people settled; the population was scattered, because the fertile soil invited the formation of large plantations, and the numerous estuaries and large rivers enabled the merchant vessels of that day to search for a cargo in many directions. The planters soon began to imitate the squires of the English counties, and they naturally adopted the county system as it then existed in England for the management of their local affairs. From Massachusetts, on the one hand, and Virginia on the other, the two systems spread as the country settled. Where these met, systems grew up which possessed some of the features of both. It is stated that to this day the southern part of Illinois has a municipal system resembling that of old Virginia, while in the rest of the state the township system prevails.

Massachusetts still retains her town system in all its pristine vigor outside the large cities. Indeed, special provision for the government of large cities appears to have been made with reluctance. We find, in a work published in 1870, the law regulating the general powers and duties of towns. This enacts that "towns shall continue to be bodies corporate with all the powers heretofore exercised by them," and that "the word town may be construed to include cities and districts, unless such construction would be repugnant to the provisions of any statute specially relating to such cities or districts. The towns have the right to hold property, make by-laws for many purposes, levy taxes, construct

telegraph lines, and perform all the duties usually discharged by municipal councils, including the support of schools, the relief of the poor, the laying out, making and repairing of highways, etc. But they exercise their chief powers in what are called legal (town) meetings held annually or called for a special purpose, which all the electors are expected to attend. Appeal may be made to the superior court by at least ten ratepayers against any by-law authorizng the borrowing of money. All elections are held at town meetings, over which the select men preside. At other town meetings a moderator is elected. At the annual meetings the selectmen, the town clerk, the treasurer, overseers of the poor, surveyors of highways, assessors, school committee, and other officials, are elected by all the male inhabitants of full age who have been residents for a short fixed term. The selectmen—who may be three, five, seven, or nine—besides presiding at the town meetings and calling special meetings, appoint police officers, inspectors of weights, etc., cause sewers and drains to be made and repaired, issue certain licenses, establish fire departments, establish a board of health, if no special provision be made in that respect, regulate street railways, and the inspection and storage of petroleum, and assist in carrying out the militia law. The perambulation of the boundaries of the town is one of their duties. The people prefer to exercise themselves directly all the powers that can be kept in their own hands.

Even in Boston, the town meeting was retained as long as possible. The adoption of the representative system was deferred until government by the old system had become impossible. When government by a mayor and council was adopted it was made exceedingly cumbrous and complex. Boston loved to boast that it was the cleanest and best governed city in America. It was not because the system was good that there was any foundation for that boast. As in nearly all other American cities, Boston had a house of aldermen, and a house of councillors. The charter of the city, as it stood in 1874, provided that "the qualified electors of said city shall at the annual meeting be called upon to give in their votes for twelve persons, being inhabitants of said city, to constitute the Board of Aldermen for the ensuing year." Another section provided that the qualified voters of each ward shall . . . bring in their votes . . . for three men . . . to be members of the common council. "In all their elections the idea of their acting in town meeting is still preserved. The executive powers of the corporation generally, and all the powers formally vested in the select men of the town of Boston, were by the charter of 1854, vested in the board of aldermen. We find it stated in a work published since, that the aldermen were elected for districts. The extent to which the people of Boston and the State Assembly succeeded in imitating the muddle and confusion of British municipal government may be learned from the following statement:

"The mayor, three street commissioners, and twenty-four school committeemen were elected at large, twelve aldermen by districts, seventy-two councilmen by wards. Of the remaining city officers, some were appointed by the mayor, some elected by the city council in convention, some appointed by the mayor and confirmed by the city council, some elected by the concurrent votes of the two branches of city council, some appointed by the mayor and confirmed by the aldermen, and some appointed by the aldermen, and of a total appropriation of $12,291,000 for city purposes, over four millions was controlled directly or indirectly by committees of the aldermen or of the city council."

The charter of 1854 was frequently amended. In 1870 the law providing for the election of a board of street commissioners by the city at large was passed. The powers of the board of aldermen respecting streets were transferred to it. In 1874 a board of registrars of voters was created. In 1875 a water board was established, and in 1878 the control of the police was transferred from the board of aldermen to a board of three commissioners, appointed by the mayor, with the approval of the council. The State Legislature has since transferred the control of the police to a board of three commissioners, appointed by the Governor-in-Council. In 1884 commissioners were appointed, under order of the Council, to report what changes in the form of government had become necessary by reason of the increase in area and population of the city. The council being unwilling to act on their report, a citizens' committee prepared a scheme of reform, which was adopted by the Legislature without material change. Under this the two branches of the city council are retained, but both are

deprived of all executive power. The mayor is authorized to appoint all city officers, subject to approval by the aldermen, and to remove any of them for sufficient cause, stated in writing. He is authorized also to veto any appropriations or any items in an appropriation. This veto may be nullified by a two-thirds vote of the council. The limit of the city's indebtedness was by the same Act reduced to an amount not exceeding two per cent. on the average valuation of any preceding five years.

The government in other American cities was organised under charters long before any one had ventured to suggest that Boston could not be governed properly by its town meetings and its select men. A charter was given to Philadelphia, by William Penn, in 1691. All early charters necessarily bore a general resemblance to one another, but they differed in several important particulars, and all were many times amended. There is scarcely a single point on which each does not differ from several others. After the close of the civil war an era of large expenditures began, and the value of the different systems, as a means of procuring what was best, to be done at a reasonable cost, was severely tested. Not one withstood that test satisfactorily. In all the cities extravagant and wasteful expenditures led to heavy taxation, and in many corruption was said to be rampant. Many cities found that a thorough change of system was necessary for their protection. It is remarkable that in all the great cities in which such changes have been made they are in the same direction. All agreed that there was so much waste, and that dishonest contractors were allowed so many opportunities of defrauding the public with impunity, because the executive functions of the city government were discharged through committees of the council, and direct immediate personal responsibility either did not exist or was not felt. Within a few years, changes have been made in the charters of New York, Brooklyn, Philadelphia, Boston, Baltimore, St. Louis, Chicago, and other cities, for the express purpose of separating the executive from the legislative work in those cities, and making the powers and duties of the councils merely legislative and supervisory, or inquisitorial. Under this system the councils determine what new works or improvements shall be undertaken, make the necessary appropriations, determine what rates shall be levied, and in the first instance or otherwise, what sums, if any, shall be borrowed. Accounts of all expenditures made are submitted to them for inspection, and in all cases they have the power to call at any time for such statements, explanations or documents, as they think it desirable to have. In some cases their approval of the nominations of officers made by the mayor is necessary, and by a two-thirds vote they may over-rule the veto or the decision of the mayor.

Upper and Lower Canada.

In 1792, Upper Canada was created a separate Province, and in the same year Lower Canada was divided into 21 counties, which were empowered to send representatives to the Legislative Assembly. But no organization for municipal purposes was created in those counties. In the parishes local works were carried on as before, under the supervision of an officer called the Grand Voyer, and the militia captain continued to be a personage of importance. The Grand Voyer appointed a surveyor of roads, and on the reports made by him decided what should be done. The justices of the peace, in sessions, had a right to adjudicate upon questions that might require their action. Overseers of highways were elected by the people of each parish. The Legislature was really the chief municipal organisation for the Province, and provided the means for the construction of such roads and bridges as were thought necessary, the residents contributing only their statute labor. This state of things continued without much change until 1841. Upper Canada meantime made more progress towards regular self-government, although the affairs of that Province were in a very unsatisfactory condition. The Legislature at first provided for all necessary works, and provided by special Acts for the establishment of markets. In time quarter sessions were established, and some towns were incorporated. When the construction of canals and other works exhausted the Provincial revenues, a system of local assessment for the construction of local works was established, and such machinery

as was absolutely necessary was provided. Lord Durham, in his report, said that the establishment of a good system of municipal institutions throughout Canada was a matter of vital importance. The chief reason he gave for this was that a general legislature which manages the private business of every parish in addition to the common business of the country wields a power which no single body, however popular in its constitution, ought to have—a power which must be destructive of any constitutional balance. The bill for the union of the two Provinces, when introduced in the Imperial Parliament, made provision for the establishment of municipalities, but it was decided that this would more properly be the work of the Canadian Legislature, then to be created. During the suspension of the constitution the special council established a municipal system in Quebec. The Province was divided into 22 municipal districts. In each the number of councillors appointed by the Governor in Council were elected in the parishes by the householders who at the same time elected parish officers. The Warden was appointed by the Governor in Council. The power of the councils was very limited, as instructions to the chairmen of parish meetings, assessors, collectors, and surveyors of highways emanated from the government. This, however, prepared the way for the introduction of a better system. In 1841 the Legislature of the united Provinces passed a measure which, though very imperfect, may be regarded as the basis of the present municipal systems of the two Provinces. By that the appointment of the warden of each county was vested in the Governor in Council.

Quebec.

Montreal and Quebec were incorporated by a temporary Act, which the legislature refused to renew when it expired in 1836. They continued without municipal government until Lord Durham's time. He said of them in his report, that "the disgraceful state of their streets and the utter absence of lighting were consequences which arrest the attention of all, and seriously affect the comfort and security of the inhabitants." Attempts were made to remedy this state of things by ordinances passed by the special council. An Act * repealed these, and provided for the incorporation of Montreal and its government by a mayor and council. The English system of having councillors elected by the burgesses, and aldermen, equal in number to a third of the councillors, elected by the councillors, was followed in this measure. The system was changed, and more ample powers were given to the city government by an act † passed in 1874, which the people of Montreal regard as their charter.

This, like all other charters, has been repeatedly amended. In the term for which members of the council are elected, the mode of election, the mode of assessing, levying and collecting taxes, the management of the police, the conditions necessary to give validity to by-laws, and the conditions on which money may be borrowed, the system differs widely from that of Ontario, as will be shown. The amendments which it is now proposed to make in this charter are, that the elections shall be conducted under the ballot system instead of by open voting, as at present; that the property qualification for members of the council be abolished; that the council be divided into aldermen and councillors, the aldermen to be elected by the owners of property, and to constitute the material for the finance committee of the city; that instead of electing one-third of the members of the council each year, as at present, all the members shall be elected once in every two years; that the wards be re-cast, so that there shall be nearly the same population and the same amount of wealth in each, and that better provision be made for the punishment of corrupt practices at elections. One of the earlier Acts required that councillors should be nominated at a meeting of the electors held in the open air. This was a survival of a very ancient custom universal amongst Celtic, German, and Scandinavian peoples.

We applied for copies of the laws which constitute the charter of the city of Quebec, but we have not obtained them. We understand that it does not differ much from that

* 14 Vict. chap. † 37 Vict. chap.

of Montreal. In both cities the principle of assessment is the same. In both the council have direct control of the police. In both the water works and other improvements were made under the direct management and control of the council. In both the water supply yields a large surplus revenue, and the rate of taxation is less than in Toronto, although the assessed value of real estate is relatively lower.

The Maritime Provinces.

In the maritime provinces the system of local government first adopted was that in which the county is the unit. The provinces were divided into counties, and these again into parishes. The quarter sessions managed all the affairs of the county, and with what was for many years a solitary exception, the affairs of all towns within the county. The sessions appointed all the more important local officers, except the sheriff and the clerk of the peace, who were appointed by the provincial government. They also provided for the maintenance and repairs of court house and gaol, for the maintenance of prisoners, the expenses of holding courts, and for such relief of the poor as was in any way provided for. The cost of making and maintaining the public roads was for the greater part provided for by the provincial legislatures, the people of the county or parish contributing only the statute labour. Several other matters were entrusted to the sessions, such as the local administration of the laws relating to public health. They granted tavern licenses also, appointed surveyors of lumber, and for years appointed the parish officers, whose duties were not important. In some cases parish officers were elected. The Nova Scotia county system differed in many respects from that of New Brunswick. Some of the higher county officials were in that province selected by the judges of the supreme court from lists submitted to them.

The charter granted to St. John, New Brunswick, in 1785, three years after "the landing of the loyalists" in that place, was the first, we believe, granted in any part of what is now the Dominion. At that time the two small towns lying at the mouth of the St. John river, were united under the name of the city of St. John, and all the ungranted lands within its boundaries were conveyed to the newly created city, with this singular proviso, that the revenues derived from the lands on the west side of the harbour should be used exclusively for the benefit of the people residing on that side. Other lands outside the city line were also granted to the city. The city was to be governed by the mayor, appointed by the Lieutenant-Governor, and six aldermen and six assistant aldermen, elected annually by the freeholders and freemen of the six wards into which the city was divided, the freeholders voting in every ward in which they held property. Aldermen and assistants sat together in council. All the white male inhabitants of full age were made freemen. After the original creation, residents of the city, who were sons of freemen or who had served as apprentices to freemen, could become freemen on paying a small fee and taking a quaint oath of allegiance and of fidelity to the city. Others could purchase the freedom of the city for £5 ($20) and the fees. None but freemen were allowed to carry on business of any kind in the city without paying an annual business license tax. The Lieut.-Governor appointed also the recorder and common clerk. To make the system more closely resemble that which then existed in England, the fisheries of the harbor, once very valuable, were made the exclusive property of the freemen. As each could not get a fishing station, the valuable stations were divided by lot amongst the freemen at the beginning of each year. The first choice, when it did not fall to the lot of a fisherman, generally sold at from $400 to $500, and several others brought good prices. Recent legislation turned the proceeds of the sale of these stations into the general revenue. The mayor, aldermen and commonalty, as they are called in the charter, had authority to appoint all their other officers and fix their salaries, to establish and regulate markets, to levy dues or tolls, and to make, improve, clean and maintain streets and sewers, and possessed all the other powers usually conferred on such bodies. The mayor, of his own authority, granted tavern licenses and licenses to hackney carriage owners and cartmen The council established and maintained a watch.

Criminal cases were tried, and petty offences directly punished, by the aldermen, who were *ex-officio* magistrates. The city was given also a court for the recovery of small debts, in which the common (city) clerk and one of the aldermen were judges, and a jury of three may be had in certain cases. This court still exists, and its jurisdiction has been enlarged to £20 ($80). The aldermen at first managed the affairs of the county also, but these were afterwards transferred to a court of Quarter Sessions, composed of the city aldermen, and of magistrates appointed by the crown, and presided over by the mayor, or in his absence by the Recorder of the city. The sessions appointed county officers, as elsewhere, granted tavern licenses, provided for the maintenance of court house and gaol, and of prisoners, and the poor, and levied rates to cover these and all other authorized expenditures. The city, which was represented at the Sessions, paid a full share of the county taxes for all purposes, its proportion being determined by the relative assessed value of property, in the city and in the parishes. A few cases, *quasi* criminal, were tried by the magistrates in session, but after the magistrates sat the Recorder held a court for the city and county, in which criminal and civil cases were disposed of, the jurisdiction being limited. The control of the harbour was given to the council, with power to appoint a harbour master and other officers, to make regulations, impose dues on vessels, and do all that may be necessary for its conservation and improvement. The council also controlled the harbour ferries from which they derive a revenue. Persons owning property on the water's edge could build wharves to the deep water line only on obtaining a lease from the council. The council own much of the property on the harbour, and they have themselves built several large wharves, provided slips for market purposes, etc. The dues and tolls payable at these are usually let at public auction once a year. It has been proposed to place the harbour in commission, but this proposal has not found general acceptance. No by-law passed by the council has force until it has received the approval of the Lieut.-Governor in Council, and the city council cannot effect any loan without express sanction of the Provincial Legislature. The water works, originally owned by a company, were purchased by authority of an Act of the Legislature. They are now managed by three commissioners. Two of these—one of whom is chairman—are appointed by the city council, and one by the council of the adjacent city of Portland. The commissioners are authorized to extend the works, and borrow money on debentures issued by themselves within the limits prescribed by the Acts of the Legislature, and to levy rates sufficient to pay interest and cost of maintenance and of management.

Changes have been made. The mayor is now elected by the whole body of electors. The assistant aldermen became councillors in time. The members of the council are now all aldermen, and number eighteen, the number of wards having increased. An Act of the legislature passed several years ago established a police court and a police force. The government appoint the police magistrate and the chief of police, who appoints and, when he thinks proper, dismisses the members of the police force. The council pay all the salaries and other expenses. The Recorder's court has been superseded by the county court established by a general Act in 1866-7, and the recorder, who is still appointed by the government, is now merely a permanent law adviser of the council and solicitor for the council in their lawsuits. He receives a salary of $800 and is entitled to taxed costs in all suits. The city chamberlain is now receiver and collector of taxes, as well as treasurer. All who are registered as electors entitled to vote at provincial elections, that is, all who are assessed on real estate to $100, or on personal estate or income to $400, are the electors of the city. A small number still vote as freemen. The quaint old-time oath which all who seek to be freemen are still required to take, is as follows :—

"You do swear that you will be good and true to our Sovereign (Lord King George the Third), Lady the Queen, and to the heirs of our said sovereign lady ; obeisant and obedient shall you be to the mayor and ministers of this city ; the franchises and customs thereof you shall maintain and this city keep harmless in that which in you is ; you shall be contributing to all manner of charges within this city as summons, watches, contributions, taxes, tallages, lot and scot, and all other charges, bearing your part as a freeman ought to do. You shall know of no gatherings, conventicles, or conspiracies made against the (King's) Queen's peace, but you shall inform the Mayor thereof or let it to your power ; all these points and articles you shall well and truly keep according to the laws

and customs of this city. So help, etc." Probably very few of those who now take this oath fully understand its meaning.

We have described the provisions of this charter at such length because we believe there is no other on this continent that in all respects resembles it, and because we believe that it has been the most successful of all the instruments framed for the purpose of adapting the fundamental principles of the municipal institutions then existing in England to the circumstances and conditions of the people of this part of the world.

The cities of Fredericton and Portland and some towns have been incorporated by special Acts of the legislature. County municipalities now discharge the fiscal and other municipal duties formerly discharged by the quarter sessions, and the county courts dispose of indictable criminal offences. An Act was first passed empowering such counties as chose to establish representative municipal government. A few counties adopted that Act. Afterwards all counties were made municipalities by positive enactment. The system is simple. The county is still the unit, and the parish merely a subdivision of the county. Each parish elects at least two councillors; some elect three, and there are other exceptions, as in the case of St. John which, the Act provides, shall have twenty-five members in its county council. Of these the city chooses ten—the mayor and nine of the aldermen; the city of Portland five—the mayor and four members of the council; two parishes elect three each, and of the two others, each elects two. The elections are annual. The councillors elect their wardens and appoint all the county officers except the clerk of the peace, and all the parish officers; provide for the maintenance of the gaol, the court house, the alms house, and public general hospital, to the support of which the province makes a small contribution; provide for the care and maintenance of prisoners and the cost of holding all sittings of the superior and county courts, except what is repaid by the government on account of jury fees; make such regulations and by-laws as such bodies are usually empowered to make for the suppression of nuisances, and the regulation of highways and wharves, and levy such rates as are necessary. The amounts to be contributed by the cities and parishes are determined by the assessed value of the property, and the cities assess and collect their share through their own officers, paying it over, when collected, to the county treasurer. In all French districts the French ratepayers elect their own overseers of the poor, who levy, collect, and disburse what is necessary for the support of the French poor. The duties of the parish officers, except perhaps the assessors, are not important. The councils regulate tavern licenses in all parishes outside of the cities and incorporated towns. In St. John an almshouse and a public general hospital are supported out of the county rates, but are managed by commissioners appointed by the government. The commissioners must submit their accounts to the councils who determine what amount shall be levied for the support of the institutions. Almshouses have been established in other parts of the province, and these are managed by commissioners or by permanent committees of the councils. The members of the councils are elected by resident ratepayers assessed upon real estate of any value or upon personal property or income of $100.

In Nova Scotia, as we have stated, the county system was the first established. The government, which was largely under the influence of the military and naval authorities, appears to have been afraid that the establishment of municipal government would lead to revolution, because the town meetings of Boston had done so much to promote rebellion and revolution in the United States. Halifax, founded in 1749 by Lord Cornwallis, did not receive a charter until 1841. In 1751 the governor and council, in whom the legislative and administrative powers were then combined, passed an ordinance dividing Halifax and its suburbs into eight wards, and empowering the inhabitants to choose eight town overseers, one town clerk, sixteen constables and eight scavengers for "managing such prudential affairs of the town as shall be committed to their care by the governor and council." A legislature was elected in 1758, and at its first session a joint committee of both houses was appointed to choose four overseers of the poor, two clerks of the market, four surveyors of highways, two fence viewers, and two deputy reeves, for the much favoured town. For many years the legislature controlled directly the local government of all parts of the province.

When immediate legislative control of local affairs ceased and the counties attained

their present number and managed their own affairs, the system in them differed from that of New Brunswick. The government appointed the sheriff, and the custos, as chairman of the sessions, appointed the clerk of the peace; the sessions appointed a county treasurer and assessors; the grand jury of the court of sessions nominated a number of persons as officers for the sub-divisions of the county, which were indifferently called parishes or towns. Out of the list so made up the sessions made the appointments. The grand jury made presentments for such sums as were, in their opinion, required for building or repairing court houses and gaols, and for other county purposes, but if they neglected to make presentment the sessions could amerce the county. The sessions had power to make certain regulations for the good government of the county.

Several years ago an Act was passed authorizing any county that chose to establish municipal government. When the Act was adopted the council elected under it were authorized to adopt a system based upon the township as the unit, and in other respects similar to that then existing in Canada. It was not till 1879 that all the counties were made municipalities by Act of the Legislature. Under this Act the inhabitants of every county and sessional district (the larger counties we presume are divided into such districts) are created a body corporate. The polling districts laid off for the election of members to serve in the general assembly, are made the electoral districts of the municipality. The larger districts named in a schedule elect two councillors each, the others one. The vote is by ballot. The elections are annual. Councillors must be possessed of the same qualifications as members of the House of Assembly are required to have, and the electors the same as the electors of the members of Assembly. The councillors elect the warden. The councils are required to meet twice a year and special meetings may be called. The warden may be paid a salary not to exceed $50, and the councillors at such rate as the council may determine, not to exceed one dollar a day and travelling expenses at the rate of five cents going and returning per mile. The council appoint a clerk, treasurer, assessors, collectors, auditors and such other officers as may be necessary. The properties previously held by the sessions were transferred to the councils and all the powers possessed and duties discharged by the sessions including that of imposing rates to meet expenditures became theirs. The rates must be apportioned and assessed "equally on all property liable by law to poor and county rate" and all rates and tolls imposed by the council are assessed and recovered in the manner prescribed by the by-laws. Some of their powers are specified in the Act. The warden and councillors are *ex-officio* justices of the peace. The warden possesses the power formerly held by the custos. The council may appoint a board of health, health wardens and inspectors, lay out wards, apportion money granted by the legislature for roads and bridges, enforce the performance of statute labour, make provision for the support of the poor, make orders for carrying into effect the law as it may from time to time exist concerning the manufacture, importation and sale of intoxicating liquors, . . . so far as it may be competent for the legislature of the Province to give such authority, may regulate ferries and public wharves, establish and regulate makets, etc. They are empowered to make by-laws respecting thirty-nine different classes of subjects, such as rural municipalities are usually called upon to deal with. The by-laws to take effect must receive the approval of the Lieut.-Governor in council. No general power to borrow is given but old liabilities are secured. The council appoint also the revisers of the lists of electors for the General Assembly.

At present, the city of Halifax is governed by a mayor elected annually, and eighteen aldermen elected for three years, one-third of the number being elected every year. Every male British subject who has resided in the city for one year and has been assessed therein for poor and city rates, or for poll tax for the support of public schools, and has paid his taxes, is an elector. Non-residents doing business in the city and paying taxes, and members of the city fire brigade exempt from taxes, are also electors. The elections are by ballot. The city council manage the affairs of the city through committees and officers appointed by the council. They appoint also the commissioners who manage the city schools. They have entire control of the city police force whose chief officer is called a marshal. They appoint a recorder who seems to be no more than legal adviser of the council and solicitor for the city. A stipendiary magistrate, appointed by the government and paid by the city, presides in the police office. The city has a

civil court in which suits for less than $80 may be tried. In this the police magistrate or some other judge presides. The city maintains a prison at Rockhead. A board of commissioners, comprised of one alderman selected by the council from each ward, manage all the work on the streets with the assistance of a city engineer. It requires a two-thirds vote of the council to displace any of those commissioners. Careful provision seems to be made for enforcing sanitary regulations and compelling the owners of buildings to carry them out. A city architect or inspector of buildings is appointed to enforce these regulations; health inspectors direct the cleaning of all streets, passages, wells, vessels and docks; and there is a city medical officer whose duties are multifarious and important. The city purchased the water works some years ago, and commissioners are appointed by the council who, under control of the council, maintain, extend and manage the works, but the council regulate the rates directly. A board of commissioners, of whom eight are appointed by the government and three by the city council, the mayor also being a member, manage the poor house and public hospital. The council levy all the rates required for the city service, including the poor rates. The taxes are assessed by an inspector and a ward assessor, who, sitting as a board, hear appeals. Real and personal property are assessed at what is supposed to be their value. The city treasurer is also receiver and collector of all taxes, including the water rates, and has power to issue distraint warrants. The city council appear to have power to make all by-laws and regulations necessary for the good government of the city. They cannot contract loans without express authority from the legislature, and their by-laws do not go into operation until they have been approved of by the Lieut-Governor in council. Tavern licenses are granted by the council when a majority of the ratepayers in a license district petition in favour of such license and two of the license committee recommend that it shall be granted.

Charters have been given to other towns in the province which are regarded as more nearly approximating to what perfect charters should be than that of Halifax; the experience of that city has been a guide to the others. But though they differ somewhat in construction, there does not appear to be any essential difference in the purpose for which they were framed, or in the means devised for the attainment of that purpose.

Prince Edward Island, granted in fee to a small number of proprietors whose claims to a small rent from the occupiers of the soil were extinguished only a few years ago was laid out in counties, parishes, and townships. The parishes included three to six townships. To Charlottetown and some other town sites were attached tracts of land of some 6,000 acres each called commons or royalties. The parish divisions are now almost forgotten. Charlottetown, the capital, and Summerside have special Acts of incorporation. The establishment of municipal authorities with limited powers in towns and villages was provided for. How far any of the communities of the province availed themselves of these powers we have not learned; the legislature continues to do the work which municipalities should do. It passes Acts respecting the regulating of markets, ferries, roads and bridges, court houses, goals, and fire departments, and for the relief of the poor, and it makes appropriations for the support of schools and for local works of many kinds from the provincial treasury.

Ontario.

The Ontario municipal system, when compared with those we have thus briefly described, must appear vastly superior to them all in simplicity, symmetry, and sufficiency; yet that it is not without defects, and that something may be learned from a closer comparison with other systems may be admitted.

In this country, as in the United States, the chief difficulty is found in the government of the larger cities. The people of a large city can not be expected to keep a watch on all that is done by the city government. There are too many things to be looked after, the distances are too great and everyone is busy attending to his private affairs. Take, for example, the improvements of the Don in Toronto, which involve an expenditure of some hundreds of thousands of dollars. It is probable that not one in five of the rate-

payers has ever seen that work since it was commenced, and that of those who have seen it not one in twenty has made such an examination as would enable him to form an opinion as to its value or the manner in which it is done. The people of a large city must trust those to whom they confide the government of the city and the control of its affairs, and it is therefore of the utmost importance that they shall be able to choose the most honest, intelligent and capable men that can be found, and that such men when chosen shall find no insuperable obstacles placed in their way by custom, or usages, or system.

While the work of the civic departments is done under the immediate supervision and direction of committees of the council, it cannot be expected that men of large business experience will be found willing to become members of the council. We have not in this country, as they have in England, a large number of men who, having acquired a competency, have much time at their disposal and sufficient strength and energy left to enable them to take an active part in municipal affairs, devoting their time to the benefit of their fellow citizens. The demands of business on the time and attention of even our most successful business men is so great that there are few who must not make a sacrifice in order to devote even part of one or two afternoons or evenings in the week to the general business of the city. To expect that men of that class will undertake the work of canvassing the electors in the manner usually most successful in order to obtain a position requiring so much self-sacrifice, seems absurd. In the cities of the United States, after the great war, the expenditures for improvements, useful or ornamental, became enormous. Extravagance prevailed everywhere, and this led to corruption. Respectable men were excluded from the city councils, the control of which fell into the hands of a few who suddenly became rich. Various changes of the law regulating municipal government were made for the purpose of remedying these evils. Governor Hartranft, of Pennsylvania, in a message to the legislature recommending that a commission be appointed to enquire what should be done, admitted that "honest men can not be made by legislation," but said that "to the power for evil of those who are dishonest and careless a limit can and should be fixed," and that "the principal source of abuse is not in the disposition to do wrong but in the license to peculate and plunder." When the belief that the majority of those who sought election to the council of a city had dishonest motives became general, respectable men shrank from positions which would subject them to such an imputation, and very many would not participate in city government even so far as to vote at city elections. Other means having failed many cities of the union have sought in the absolute separation of legislative and executive functions a remedy for both those evils. They believe that it will prove efficacious.

We, too, hear complaints of extravagance and waste, and sometimes of petty or of gross jobbery. Taxation and expenditure increase enormously, but our system of sewerage remains imperfect, our pavements and sidewalks in a wretched condition, the streets of some of our towns indescribably filthy, our water supply unsatisfactory. Can anything be done to secure a better and more economical administration of the affairs of our cities and towns? Should we adopt the principle found to work so well in several cities of the United States, or any modification of it? If not, what should we do?

City Government.

We invited a large number of gentlemen who have had much experience in municipal matters to state their views on this important subject; many accepted the invitation. It might be well to state in brief what their views are and how far they coincide with what other countries have learned from experience.

The Toronto gentlemen who responded to our invitation are nearly all now members of the city council, or they have held seats in that body for some years. They were almost unanimous in their opinion that great changes are necessary, bnt they differed very widely as to what the changes should be.

Some thought that Toronto can never be governed properly until it has a charter of its own. When asked to explain why they thought this necessary, and why such changes as would fully meet all the requirements of the larger cities of the Province could not be made in the general municipal law, they gave no explanation that seemed to mean more than this—that Toronto should be able to manage all its own affairs without being compelled to apply to the legislature so often for authority. In few if any of the cities that have special charters do the city councils possess greater powers than are now possessed and wielded by the city council of Toronto. Indeed, under the general powers conferred by the Municipal Act, their action is more free than it would be if a charter prescribed expressly what they may do and how it must be done. And cities having charters are frequently compelled to apply to the legislatures for amendments of the charters or for additional powers.

The Electorate.

Several of the Toronto gentlemen thought that the present municipal franchise clauses work satisfactorily; others that it may be well to simplify the franchise, but that it does not matter much whether this is done or not. Some thought that any great reform must begin with the electorate. One said that all the attempts now made in the United States to improve the municipal system by improvements at the top must fail, as, if the foundation were bad, the whole structure must come to ruin. The one improvement he proposed was compulsory voting. He would have a pecuniary penalty imposed on every elector who could vote and who did not, and he would have the amount added to the elector's tax bill. Another would punish the defaulting elector by disfranchising him for a period. An extension of the franchise to all women a gentleman of great experience thought would be the most effectual means of securing good government. Another was opposed to all restrictions and all fancy franchises, and would substitute what is usually called universal suffrage for the present municipal franchise. On the other hand, there were a few who thought that property should be more largely represented and should have more influence in municipal government than it has at present. One gentleman* who has given much attention to the subject, submitted for our consideration facts to show that in Russia and in Spain the electors are divided into three classes. The larger ratepayers who pay one-third of the whole tax form one class; those of the remaining ratepayers who stand next in respect of the amount of their taxes, and who pay another third form a second class; and all the others the third class. Each class has an equal voice in the elections. In Prussia, there are three electoral colleges. He would have some such system adopted here, or failing that he would have the franchise of the English Boards of Health and other boards, which has been adopted in the Australian colonies. All were satisfied with that part of our system which requires that by-laws authorising loans must be sanctioned by the property owners.

The English Municipal Act of 1882 provides that in order to have the right to vote at a borough election a man must be a British subject of full age; must have been one whole year preceding July 15th in occupation, joint or several, of a warehouse, counting house, shop or other building in the borough; must have resided during the whole twelve months in the borough, or within seven miles of it; must have on or before July 20th paid all such rates as have become payable by him in respect of the qualifying property up to the then preceding 5th of January; and must have been enrolled as a burgess. Only those who have received parochial relief, or who are disentitled by Act of Parliament, are excluded.

At the elections of guardians of the poor, and of members of the Local Boards under the Public Health Act of 1875, which now manage the municipal affairs of many hundred urban and rural districts in England, the qualification of electors is, that they be rated as occupiers or proprietors, jointly or severally, of lands, houses, warehouses or shops, and that they have paid the rates. But persons rated at £50 have two votes: those rated at more than £50 and less than £100 have three votes, and so on until the maximum of six votes is reached. If the occupier of a property rated at £250 is also the owner, he

* R. W. Phipps, Esq.

has twelve votes. A similar franchise exists in Ireland for the election of poor law guardians, but there a person rated at £20 has two votes, a person rated at £50 three votes, at £100 four votes, until the maximum six is reached.

In the United States universal suffrage, as it is usually called, prevails generally. The elector must have his name duly registered, and in Massachusetts and some other States all electors who are not over sixty years of age, or physically incapable, are required to read the constitution in the English language. In the towns of Massachusetts every male citizen of 21 years of age and upwards (except paupers and those who cannot read) who has resided within the state one year, and within the city or town in which he claims the right to vote six months next preceding any election of city, town, county, or state officers, or of representatives to Congress, or election of President or Vice-President, and who has paid by himself, his parent, master or guardian, a state or county tax assessed upon him in the state within two years next preceding such election, and every citizen exempted from taxation, but otherwise qualified, have a right to vote in all such elections, and no other person has such right to vote. The qualification of electors in other states, and in most of the cities, resembles this. In the State of New York only taxpayers had the right to vote until 1826. Now the officers of the 120 villages and of some cities are elected by universal suffrage, but the control of the financial affairs rests with the taxpayers alone. Formerly no tax whatever could be imposed without direct consent of the taxpayers. Now the boards of trustees are allowed to raise small sums by tax to meet unavoidable expenses, but the authority to levy a tax for any unusual purpose is restricted to the ratepayers.

In Montreal, the electors are the owners of properties of the assessed value of $300 or of the assessed yearly value of $30; residents tenants of dwelling houses or parts of dwellings of the assessed value of $300 or upwards; tenants, joint or several, of warehouses or counting-houses, of a like value; the husbands of women possessed of real estate of the like value; and widows and spinsters who are owners of real estate to the value of $300 each.

In St. John, New Brunswick, the qualification is the same as for election of members of the Assembly. The electors must be assessed on $100 real estate, $400 personal estate, or $400 income. A bill to substitute a more reasonable qualification in Provincial elections passed the House of Assembly last year, but was rejected by the Legislative Council. The qualification of electors of New Brunswick county municipalities is the being asssessed on real estate of any value, or on personal property or income of $100.

In Halifax, N. S., every male inhabitant, being a British subject of full age, having resided in the city for one year, and having been assessed therein for poor and city rates, or for poll tax for the support of the public schools for the year ending on the previous 31st day of December, is entitled to vote at the civic elections. So are non-residents who have done business in the city on their own account or as partners in any firm for three years previous to any election. A non-resident votes in the ward in which his place of business is. In the town of Kentville the electors are all ratepayers of the town, male and female, resident or non-resident, assessed on property within the limits of the town. In county municipalies the qualifications are the same as those of the electors of members of the House of Assembly.

The varieties in the qualification of electors in different countries, and even in different parts of the same country, are still very great; but the tendency everywhere is in the direction of a more liberal franchise. It is found from experience that true conservatism is not confined to those who are assessed on property. Still, the feeling prevails widely, that wherever the rights of property are especially involved in any question, and particularly when it is proposed to place permanent encumbrances on property, the express consent of property owners should be necessary, as it now is under the Ontario law.

Qualification of Members of Councils.

The property qualification of members of parliament has been abolished in Great Britain and in Canada, because the law requiring such qualification was constantly evaded, and because so far as it was operative it restricted the rights of the people in the choice

of representatives. The English Municipal Act of 1882 abolished property qualification in boroughs, except in the case of those who do not reside in the borough or within seven miles of it, but who do reside within fifteen miles and who are otherwise qualified to be on the burgess roll. It is required that these, to be eligible candidates for a seat in the council, shall be possessed of real or personal property or both to the value of £1,000 in boroughs of four or more wards, and of £500 in smaller boroughs, or be rated for the relief of the poor in the one case, to the annual value of £30, and in the other to the annual value of £15. Every resident who at the time of the election is qualified to elect to the office of councillor, is also qualified to be elected and to be a councillor. In the many towns and districts in which local boards have been established under the Health Act the property qualification was retained up to a recent period, and it is probably retained still. In all the provinces of the Dominion, as far as we can learn, the property qualification is retained. Practically it seems to matter little whether it is retained or abolished. Montreal, we are informed, intends to ask that it shall be abolished in that city.

Ward Elections.

With two or three exceptions, only, all the Toronto gentlemen who appeared before us were in favour of the abolition of the present system of ward elections. They thought it unfair that wards with a small population and the assessed value of whose property and income is small, should have representation in the council as great as that of the wards whose population and wealth are many times greater. The injurious effects of many undue influences, some said, are greatly increased by the division into small wards. It is almost impossible, they told us, to resist those influences successfully in some of the wards. Extravagance, waste, jobbery, and even corruption, wherever they exist, are due largely to this system. Not only does the desire to grab all that can by any means be got for the smaller wards lead to general recklessness and extravagance, but contractors and others who intend to disregard the obligations they undertake, too often obtain influence enough in some of the wards to enable them to largely control their representatives. To this is attributed in a large degree the immunity which even those convicted of dereliction of duty, or of breach of contract, have in so many cases enjoyed. It was the general opinion also that the abolition of the ward system would do away with the necessity for such a style of canvassing as is now absolutely essential to success in many of the wards, and that it would be one very effectual means of inducing experienced business men to seek, or to accept, seats in the council.

But while nearly all agreed that the present ward system is evil, there was a great diversity of opinion as to the best remedy. Several gentlemen thought it would be best to divide the city into large electoral districts in such a manner that in each the population and wealth would be as nearly as possible equal. A gentleman, who, when a member of the council, advocated a division into nine districts, now thinks it would be better to divide into four, making Yonge and Queen streets the dividing lines. In this way, he argued, constant personal canvassing and the other evils of the ward system would be got rid of, the representation of local interests would be sufficiently guarded, and the knowledge which constituencies should have of their representatives would be retained. Another would divide the city into three districts, running the dividing lines in any way best calculated to make the division of population and wealth nearly equal, and to include representatives of all classes and interests in each division. Believing that there must always be a preponderance of wealth in the central district, he would give it proportionately large representation, say an additional member for every two or three million dollars in excess of the average valuation of the other divisions. Only one gentleman proposed to find the remedy for the evils which he, too, admitted, in an increase in the number of electoral divisions. He would divide the city into twenty-four districts by lines drawn from the bay, and each should have but one representative. The majority of those who gave us their opinions thought that the easiest and surest remedy would be the total abolition of electoral divisions and the election of all the members of the council by the citizens at large. This would render the adoption of some system of minority representation necessary, either that of the English school board system, which gives to each elector as

many votes as there are candidates, and allows him to give all his votes to one or to divide them as he pleases, or one similar in principle to that under which elections for the provincial legislature are now conducted in Toronto.

In Great Britain and Ireland the ward system is general in the cities and large towns, and special provision is made for a division into wards in the Public Health Acts, and the other Acts under which local boards, boards of town commissioners, improvement commissioners, etc., are created, but such division is not made compulsory. Provision is made in nearly all cases, in which the ward system is adopted, for a fair representation of population and of property. The English Municipal Corporations Act of 1882, provides that if two-thirds of the council of a borough, not yet divided into wards, petition the Queen for a division, or, in case of boroughs already divided, petition for an alteration of the number and boundaries of the wards, Her Majesty may, by Order in Council fix the number of wards, and the commissioner appointed by the Secretary of State to make such division shall apportion the number of councillors amongst the wards, having, as far as practicable, regard as well to the number of persons rated in the ward as to the aggregate rating of the ward. The Act of 1854, authorizing towns to establish boards of commissioners, provides that in dividing towns into wards "regard shall be had as well to the number of persons rated to the relief of the poor in each ward as to the aggregate amount of the sums at which all the said persons shall be so rated." An Act of 1849 provided that Dublin should be divided anew into fifteen wards, and the commissioner appointed for the purpose was enjoined to have regard as well to the number of persons rated as to the sums at which they were rated. The provisions of the Act of 1882 give reason to conclude that there are still many incorporated boroughs in England which are not divided into wards.

In Boston the charter of 1854 regulated civic affairs until the recent changes were made. The council were by that directed to cause a new division of the city to be made into twenty-four wards in the year 1875, and each tenth year thereafter in which "a census shall be taken by authority of the commonwealth, this division to be made in such a manner as to include an equal number of voters in each ward as nearly as conveniently may be." The council are not enjoined to pay any regard to the value of the property in the wards.

In Boston, the mayor is elected annually by the voters of the whole city. Twelve aldermen, who constitute a distinct body, are also elected annually. The words of the charter of 1854 would seem to indicate that they are elected by the city at large, but we see that aldermanic districts are elsewhere spoken of. Each such district probably comprises two wards. Each of the twenty-four wards elects three councillors annually.

In New York, the aldermen number twenty-two. Sixteen are elected by districts and six by the city at large. It would be at least interesting to know whether any of the aldermen elected by the city at large were implicated in those sales of valuable franchises of which we have heard so much. No elector votes for more than four of the aldermen at large, and in the districts in each of which which three aldermen are elected no voter votes for more than two.

In Baltimore, one member from each ward is elected to one branch of the council, and one from every two contiguous wards to the other branch.

In St. Louis, the members of one branch are elected "on a general ticket." One member from each ward is elected to the other branch called, the house of delegates.

In Chicago, the council consists of the mayor and thirty-six aldermen, who are elected by the city at large, we believe, and on the system of minority representation.

We have found that in Toronto the feeling prevails very widely that the abolition of the ward system of elections is absolutely essential to the success of any attempt at reform.

Term of Representation.

We have found also that in the opinion of a large number of those who have had much experience in municipal affairs, the services of active business men in city councils can not be secured if the elections continue to be annual as at present. Months, they say, must elapse before even the most intelligent, energetic business man can learn all

that a member of the council must know about the working of the city government and the affairs of the city in order to be really useful. Before the member elected for the first time has acquired this information, it becomes necessary to devote all the time he has to spare to the preparation for a new election, and at the end of the year he finds himself theoretically responsible for much that, if he had been better informed in time, he would have done all in his power to prevent. The necessity for a long annual canvas in order to make re-election in the slightest degree probable has driven many men from the council whose services would have been extremely valuable.

The English Municipal Act of 1882, enacts that "the term of office of a councillor shall be three years," and that a third of the whole number of councillors shall go out of office in rotation every year. The aldermen, as we have already stated, are elected by the council, their number being one-third of the whole number of councillors, and the term of office of aldermen is six years. On the ordinary day of election of aldermen in every third year one-half of the whole number of aldermen go out of office, and their places are filled by election. Outgoing aldermen are eligible. In Great Britain and Ireland the members of the boards created under the Health Act—local boards, of boards of improvement commissioners, of boards of poor law guardians, and of all municipal bodies, are elected for three years, the mayors, only excepted. A third of the whole number of each board go out of office every year.

In New York the mayor is elected at the general State election to hold office for two years.

In Baltimore the mayor is elected for two years. The members of one branch of the council are elected annually. The second branch is composed of one member for every two contiguous wards, elected biennially.

In Philadelphia the mayor is elected for four years, and is not eligible for re-election. The members of the select council, corresponding with the board of aldermen of other cities, are elected for three years, and one-third go out every year. The members of the common council, as thê other branch is called, are elected for two years, and one-half go out every year. One councilman is elected for every 2,000 taxable inhabitants.

In St. Louis the mayor is elected for four years. The members of one branch of the city council is called the council, and its members, thirteen in number, are elected on a general ticket for four years. The members of the other branch, called the house of delegates, are elected, one for each ward, to serve two years.

In Montreal the aldermen are elected for three years, and a third go out every year in rotation. It is now proposed that they shall all be elected every two years.

In Halifax, N. S., the term of office for the aldermen is three years, and a third go out every year. The mayor is elected annually.

In St. John, N. B., the mayor and aldermen are elected annually.

The general feeling appears to be in favour of a term of more than one year for members of municipal councils and boards, the object being apparently to ensure that a large number of the members shall have sufficient experience to conduct municipal affairs prudently, and to induce men to accept seats who are averse to undergoing the turmoil and excitement of annual elections. As there has been no agitation for a shortening of the term in Great Britain, the feeling there must be that councillors and commissioners holding their seats for three years are sufficiently amenable to public opinion. In none of the cities of the United States, in which aldermen or councillors are elected for terms longer than one year, has a reduction of the term as far as we have learned, been proposed as a means of obtaining the reforms which have been found absolutely necessary in several cases to prevent insolvency.

Mode of Election.

The mode of election in Great Britain, as in this country, is now by ballot. The system followed at municipal elections in Ontario is in the main that on which Dominion elections are conducted. It has been suggested that the system on which Ontario Provincial elections are conducted would be much better, as under that such frauds as it is alleged were perpetrated at some important elections could not be successful. It is also

suggested that instead of having the persons to hold the polls in each district nominated by the aldermen, as at present, some responsible official should be made the Returning Officer, with power to appoint all his subordinates. It would not be easy to find an official wholly independent of the council, unless some one unconnected with the council were named. The city clerk would scarcely refuse to appoint the nominees of the aldermen. The English Municipal Act of 1882, enacts that at an election of councillors for a whole borough—that is, a borough not divided into wards—the returning officer shall be the mayor, who is himself elected by the council, and that at an election for a ward the returning officer shall be "an alderman assigned for that purpose by the council at the meeting of the ninth of November," that is nearly a year previous, the annual elections being held on the first of November. In the Boston charter of 1854 the provision is—and this is probably still in force—that the mayor at some time before the first day of October in each year (the general annual elections being held on the Tuesday after the second Monday of December) shall, with the approval of the board of aldermen, appoint for each voting precinct one warden, one clerk, two inspectors (representing equally the two leading political parties), and deputies of all these, who may take their places if necessary. These hold office for the year, and conduct all elections held during the year for civic, state, or national purposes. It has been suggested that the sheriff would in all probability act more impartially than any officer appointed by the city council, but the appointment of the sheriff for that purpose may be deemed an undue and unnecessary interference with the municipality's right of self-government.

The Division of Power.

Assuming that the city municipal councils possess sufficient power for all the purposes of good government, or that such additional powers as they may find necessary can easily be obtained, the question arises, "Is that power now so distributed and used as to produce the best possible results, and if it is not, should the legislature use its authority to enforce a better distribution?"

Nearly all the Toronto gentlemen who appeared before us were of opinion that Toronto has greatly outgrown its present system and that a radical change has become necessary. This is probably as true of several other large cities. The civic machinery in all these cities was not constructed at once upon an improved model, but piecemeal, one part after another being added as it was found necessary, the idea prevailing throughout being that the Old Country method of doing everything through a committee of the council must be adhered to. All agreed that the time has come when the mayor should have more power and more responsibility, and when the legislative and executive functions should be separated, wholly as some thought, or to a very great extent, as a few would prefer. As to the best manner of effecting such separation there was, as on other points, a great diversity of opinion.

The mayor is now directed by the Municipal Act to have supervision of all the departments of the civic government, and to see that all perform their duty, but no power is given to him to compel any officer of the city to do what is right or to punish him for doing wrong. He is, in fact, little more than chairman of the council and *ex-officio* member of the committees, and almost the only means he has of giving effect to his views, or of preventing the doing of wrong, is refusing to sign contracts or other documents of whose purport he disapproves. As to the legality of such refusal there has sometimes been much room to doubt.

Nearly all the gentlemen who have had much experience in municipal matters agreed that the mayor should have the power to veto any act or decision of the council, any appropriation and any one or more items in any approriation, and that a two-thirds vote of all the members of the council—not merely of those present at any meeting—should be necessary to override the mayor's veto. Some thought that even if the mayor had this power he should continue to preside over the meetings of the council as he may often exercise a salutary influence over its deliberations and do much to guide it to sound conclusions. Others thought it improper that the mayor should have the power to veto the decisions of the body in whose deliberations he had taken part, and that

the American system which makes the mayor a distinct branch of the city government, and allows him to communicate officially with the council only by message, is better calculated to produce good results. In Boston the mayor was, until very recently, chairman of the board of aldermen, but the last reform of the charter removed him from that position. Both branches now elect chairmen who hold that position for the year.

These gentlemen agreed that a reconstruction of the civic departments is necessary. It is obvious that much would be gained by placing the control of all works of construction, the making and repairing of streets, the making and repairing of sewers, the construction of sidewalks, the putting down of water pipes, etc., under the control of one competent person, if only because the repeated breaking up and repairing of streets that now goes on would thus be prevented, and pavements would not be spoiled almost before the work of laying them had been completed. Gas companies, telegraph companies, and all others should be required to obtain permission of the head of this department before opening any street or erecting any posts, and this permission should be applied for at the opening of each season, cases of emergency, of course, excepted. The construction, repairs, and maintenance of all public buildings and other erections should also be assigned to this department. The department should be carefully organized, and a competent man should be placed over each branch of it.

There was some doubt as to the best mode of reorganizing the other departments. All agreed that there must be a city solicitor, or, as some said, a law department, that the assessment system requires revision, that there must be a treasurer and collector or collectors, an auditor or auditors, and a health department; that some one must be made responsible for the proper management of the city property, and that the water works supply service and the fire department should be under efficient control. Of the working of the present system of assessment every one complained. It was suggested that the treasurer may also be the collector of taxes, water rates, rents and other revenue as in Montreal and St. John, N.B., and have, as in the latter city, the power to issue distraint warrants when necessary. If this were not done—and some said that nothing would really be gained by it, while one mode of checking the accounts may be lost by it—it was the general opinion that there should be but one collector of taxes and of all city revenues, who should keep his office open every day in the city building or some other public central place. It may be necessary that he should appoint deputies or others to make demand when taxes, are not paid before the fixed period, and he should be held responsible for money collected by them.

A proper system of audit, which would prevent improper payments, the embezzlement or overholding of money by officials in any department, undue favouritism toward any rent payers or tax payers, all thought absolutely necessary, the failure of the present system having become manifest in many cases of late.

An efficient health department, of which a medical man should be head, or chief assistant, was also felt to be necessary. The present system or joint system does not work as well as might be desired. Whether the ordinary cleaning of the streets should be given to this or to the public works department was matter of some doubt. But all agreed that there should be a thorough cleaning out of all lanes, alleys and yards; that the inspection of water closets and cesspools, should be frequent and thorough; that there should be a vigilant inspection of all buildings, old and new; and that the provincial law, which seems sufficient, should be thoroughly enforced. One medical gentleman stated that the law is now disregarded or evaded to an almost incredible extent, and that the cases in which it is fully carried out are the exception. The inspection of new buildings as a security against fire might possibly be united with sanitary inspection, and thus be made more effectual for both purposes. But a thorough inspection of older buildings is even more necessary.

How should the heads of these departments be appointed, and what should be their tenure of office?

Some preferred the system lately adopted in several large American cities, under which the mayor appoints the head of each department and, on recommendation of the head, all the subordinates, and is himself responsible to the people. But only one thought that it would be well to extend the term of the mayoralty beyond one year, and

several thought that if reappointment every year by every new mayor were necessary, the best men could not be induced to accept positions of trust and responsibility. The heads of departments, these urged, should be appointed for a term of three or five years, or even in some cases, during good behaviour. Others thought that the appointments should be made, as in some American cities, by the council on the nomination of the mayor. Others insisted that the people may and should be trusted to elect the best men for all those positions, and that persons elected to be treasurer, collector, auditor, head of the department of works, etc., would on the average of a number of years be better than those appointed by mayor or council or both, and, at all events, that the elective mode is more consonant with the principle of popular self government. When asked to explain how due subordination and uniformity of action could be maintained if the heads of departments were elected and, as has been said in the report of a New York commission, so many mayors were thus created, the advocates of the elective system said that they would give the mayor and council authority to supervise the work of all the departments, calling for all statements and explanations they thought necessary, and would empower two-thirds of the council, on recommendation of the mayor, to dismiss the elected head of any department or any of his subordinates. One gentleman said he would have the elected heads attend all meetings of the council to answer all questions that might be put, and make any explanations that might be required.

Another gentleman proposed that the present committee system be retained in a modified form, and that at the first meeting of each newly elected council a member of the council should be elected as the chairman of each of the more important committees, that the chairmen so elected should be clothed with large powers in the several departments, and should collectively form the executive council, presided over by the mayor, meeting every day and taking into consideration all matters relating to the city's interests. Thus constantly employed, they should receive a fair salary. A proposal submitted to the council by Alderman Boustead was that at every annual election the ratepayers should select the aldermen who should be chairmen of committees and who should receive salaries.

The prevailing feeling, even amongst those who would retain the old committee system, was, that in a city so large as Toronto, aldermen should not be expected to give all the time that is necessary to the proper supervision of the working of the departments, and that it has become necessary to have one competent head for each who would devote his whole time to it, receiving fair remuneration for his services. The only difference of opinion really was as to the manner in which the persons to do this work should be elected, selected, or appointed.

One of the beneficial results which were expected by every one from the changes he proposed was that the members of the council would be relieved from the work which now requires so much time and attention, and which to men actively employed in business must always be disagreeable. The power of legislative appropriation and general supervision would still remain in the council. All by-laws necessary for the good government of the city would still be passed by them. No work could be undertaken, no tax imposed, no due or toll charged, no money borrowed, and no money expended, unless, perhaps, the interest on the debt, without their express sanction. It might be well to require that ordinarily no work be undertaken unless on recommendation of the proper department, but it was generally agreed that the council should have power by a two-thirds vote to order any work to be done. All appropriations should be made by the council on estimates prepared by the departments and submitted by the mayor, or prepared by a committee of their own body on reports from the heads of departments. All accounts of expenditure should be submitted to them, and they should have the power in every case to require accounts of the progress of any work and of the amount expended to be laid before them. According to all the plans proposed they would always have the right to suspend or remove any civic officer by a two-thirds vote of the whole council.

In Great Britain the council of a city or borough appoint all the civic officers, except two auditors, who are elected, and, in new parliamentary boroughs, the revising assessors. These are elected, not on November 1st when the councillors are elected, but on the first of March, and probably in order to ensure the election of men who are

known to be qualified, the Municipal Councils Act provides that, "an elector shall not vote for more than one person to be an elective auditor or revising assessor." An elective auditor must have the same qualifications as a councillor is required to have. A third auditor is appointed by the mayor. He must be a member of the council, and he is usually called the mayor's auditor. Except in the incorporated boroughs the accounts of all public bodies, such as local boards, and boards of guardians, are now audited by auditors appointed by the local government board.

Few of the suggestions made to your commissioners were to any extent novel. Nearly all the changes proposed had been suggested or tried in those cities of the United States which for some years have sought by changes in their system of government to get rid of the evils that threatened them with ruin. A review of the history of the various experiments tried in those cities would be interesting, but the present state of civic government to which all these experiments led is the proper matter for our consideration.

In New York, although the state legislature interferes unduly in many ways with matters which should be left under the control of the city council, an Act of Assembly passed in 1884, provides that "all appointments to office previously made by the mayor and confirmed by the board of aldermen, shall hereafter be made by the mayor without such confirmation." This restored to the mayor, after a long struggle, the power he held prior to 1872. Governor, now President, Cleveland, when he signed this Bill, filed his reasons. One of these was that "if the chief executive of the city is to be held responsible for its order and good government, he shall not be hampered with any interference with his selection of subordinate administrative officers, nor should he be permitted to find in a divided responsibility an excuse for any neglect of the best interests of the people. The plea should never be heard that a bad nomination had been made, because it was the only one that could receive confirmation." Governor Tilden, a man distinguished for his ability and for the reforms he effected in the state, in vetoing a bill passed to give the power of appointment to the common council said: "Nowhere on this continent is it so essentially a condition of good government as in the city of New York, that the chief executive officer should be clothed with ample powers, have full control over subordinate administrative departments, and be subject to an undivided responsibility to the people and to public opinion." On another occasion he said: "Have no provision in your charter requiring the consent of the common council to the mayor's appointments of heads of departments. That only opens the way for dictation by the councils, or for bargains."

The executive departments are finance, the head of which is the comptroller; law; public works, entrusted to one commissioner; police, public charities and correction; and departments of fire, of health, of public parks, of taxes and assessments, of docks, and of street cleaning. The comptroller, commissioner of works, corporation council, and the president of each department, sit at the board of aldermen, and take part in the discussions but do not vote. The mayor may make removals subject to the approval of the governor. The board of estimate consists of the mayor, comptroller, president of the board of aldermen, and president of the department of taxes and assessments. Heads of departments furnish a statement in detail of what they require. The estimates when prepared are submitted to the board of aldermen, who may suggest changes. If their suggestions are over-ruled by the board of estimates, as they may be, the reasons must be published in the "City Record."

A brief description of the constitution, powers and duties of the principal departments may be useful. The law of 1873, which we believe is still in force, provides that the Finance Department shall have control of the fiscal concerns of the corporation. It shall prescribe the forms of keeping and rendering all city accounts, the manner in which all salaries shall be drawn, and the mode by which all creditors shall be paid. All payments by or on behalf of the corporation shall be made through the proper disbursing officer of the department of finance, on vouchers to be filed in said department by means of warrants drawn on the chamberlain by the comptroller and countersigned by the mayor. The comptroller may require any person presenting for settlement, an account or claim against the corporation, to be sworn before him, touching such amount or claim, and when so sworn to answer orally as to any facts relative to the justness of such account.

"All accounts rendered to or kept in the other departments shall be subject to the inspection and revision of the officer of this department, and subject to the conditions aforesaid; it shall settle and adjust all claims in favor of or against the corporation, and all accounts in which the corporation is concerned." No contract shall be binding, or of any force or effect, unless the comptroller shall endorse thereon his certificate that there remains unexpended of an appropriation made for such service a sum sufficient to pay the estimated expense of executing such contract. The comptroller furnishes to each head of department weekly a statement of the unexpended balance of the appropriation for his department. In this department there are eight bureaus; one for the collection of the revenue accruing from rents, from interest on bonds and mortgages, and from the use and sale of property; another for the collectionof taxes; another for the collection of arrears of taxes and water rents; an auditing bureau which, under the supervision of the comptroller, "shall audit, revise and settle all accounts in which the corporation is interested, and shall keep an account of each claim for and against the corporation;" a bureau of markets, whose head is superintendent of markets; a bureau for the reception of all moneys paid into the treasury of the city, and for the payment of money on warrants drawn by the comptroller and countersigned by the mayor; and a bureau for the collection of assessments. The head of this department is the comptroller. He holds office for four years. The chamberlain is required to exhibit his bank book to the comptroller on the first Tuesday of every month, and oftener if required, and when his accounts for the year are closed they are carefully examined by the "commissioners of accounts."

The department of public works is next in importance to the department of finance. The head of this department, who is called the commissioner of public works, holds office for four years. Under the cognizance and control of this department are all structures and property connected with the Croton water supply; the collection of revenues arising from the sale or use of the Croton water; opening, altering, regulating, grading, flagging, curbing, guttering, and lighting streets, roads, places and avenues; repairing and constructing public roads; the care of public buildings; the filling of sunken lots; public sewers and drainage; street vaults and openings in sidewalks; paving, repairing, and repaving streets and keeping them clear of obstructions; the digging and constructing of wells. In this department there are eight bureaus; one has charge of the laying of water pipes, of the construction and repairs of sewers, wells and hydrants, and of paving and repairing streets; another has charge of the collection of revenue derived from the sale and use of water; another has care of all structures connected with the supply and distribution of the Croton water—the head of which must be an engineer of ten years' standing. The other bureaus have charge of grading, flagging, curbing and guttering streets, of lamps and gas, of streets and roads, of repairs and supplies of all public buildings and works; of the removal of incumbrances from streets and sidewalks.

The health department consists of the president of the board of police, the health officer of the port, and two officers called commissioners of health, one of whom has been a practising physician for not less than five years preceding his appointment. The commissioner who is not a physician, is president of the board. The commissioners hold office for six years. There are two bureaus in this department. The head of one called the sanitary superintendent is a physician who has been in practice for at least ten years. The other department keeps a registry of births, marriages, deaths, and inquisitions of coroners. The board make provision for the enforcement of all existing ordinances respecting the health of the city, and make such amendments thereof and additions thereto as they find necessary. Their positive and discretionary powers appear to be ample.

The duties of the department of buildings as prescribed in detail are important. Were they properly performed we should never hear of houses new and old crumbling, of buildings badly lighted, badly ventilated, badly drained, and without sufficient means of egress.

In the city of Brooklyn all appointments are made by the mayor without reference to the council, and those who favour this system say it works admirably.

When the late amendments of the charter of the city of Boston were under consideration it was proposed to make the city council one body, and to give to the mayor

the absolute right of making all appointments. We have stated elsewhere that up to 1885, some of the city officials were elected by the ratepayers, some were appointed by both branches of the council in convention, some on recommendation of the mayor, by one or by both branches, and some by the board of aldermen. It was proposed also that, to serve as a check on the mayor, lest one man, possessing so much power might abuse it, "an executive council, composed of a small number of persons, elected from the citizens at large upon the minority representation plan" should "act upon the mayor's appointments and possess certain executive powers." A compromise was agreed upon. The two branches of the council were retained. The executive powers of the city are vested in the mayor, to be exercised through the several officers and boards of the city in their respective departments, under his general supervision and control. The mayor is authorized to appoint, subject to confirmation of the board of aldermen, all the municipal officers and boards (except the board of police, appointed by the governor, the street commissioners, elected by the people, and the clerks and messengers in attendance upon the city council), and he may remove any of them for such cause as he shall specify in the order for removal. Every ordinance, order, resolution or vote of the city council, and every act of either branch, or of the school committee involving an expenditure of money must be presented to the mayor for his approval, and in the case of orders, involving the expenditure of money, if there are separate items, he may approve of some of them, and disapprove of others. An ordinance disapproved shall not be in force unless reconsidered and approved by a two-thirds vote of the members of the city council present when the vote is taken. The annual estimates of expenditure in the several departments are sent to the mayor for examination, and he is required to submit them, with his recommendation thereon, to the city council. All contracts in which the amount involved exceeds $1,000 require his written approval. All drafts upon the city treasury, and all certificates of indebtedness require his approval. All conveyances and leases of city land, and all other instruments under seal executed in behalf of the city, must be signed and delivered by him. He is required to call together the heads of departments once a month, or oftener, for consultation and advice upon the affairs of the city. Still, the management of the affairs of the city is more complex and cumbrous than it should be. Three street commissioners, having very large powers, and holding office for three years, are still elected by the city at large —one each year—and the number of appointed officials who appear to be independent of each other is larger than it need be. Here also a number of officials—the sheriff, registrar of deeds, and registrar of probate, are elected by the county electors. The water-works are managed by three commissioners appointed by the mayor and aldermen, one each year for three years. The causes assigned for the changes proposed by a commission appointed in 1884, to examine and report were: "The lack of harmony between the different departments, the frequent and notorious charges of inefficiency and corruption made by members of the (city) government against each other and the alarming increase in the burden of taxation."

The Massachusetts General Act (1882), entitled "Of Cities," provides that "When appointments are to be made by a mayor and aldermen, the mayor shall have the exclusive power of nomination, subject to confirmation or rejection, by the board of aldermen: and if a person so nominated is rejected, the mayor shall make another nomination within a month."

In several cities and towns of New England there is a kind of dual government. The town system, to which, the people were much attached, has not yet given way wholly to the city or borough system. New Haven, a city of 75,000 inhabitants furnishes an example of this state of things. The people still assemble in town meeting and elect selectmen and a swarm of minor officials, numbering some 150 in all. And at another town-meeting they examine the accounts for the year, discuss town affairs, determine what shall be done and what amount shall be raised by taxation for town purposes. The number of citizens who attend those meetings is now small, and only the few who take an interest in town matters or know anything about them take part in the proceedings. The public generally take no interest in what is done at those meetings. The reason given for the maintenance of the town government is that a part of the town lies outside

the city and is not willing to be annexed to it. The city government which grew up beside the town government is peculiar. The people retain all their old intense dislike of centralisation. The mayor has very little power. There are, as in nearly all other cities of the United States, a board of aldermen and a board of councilmen. The twelve wards choose 24 aldermen and 36 councilmen. The presidents of the police, public works, public health and fire commissions are *ex-officio* members of both boards, with every right but that of voting. Each board elects a president. Until 1854 the consent of the people in city meeting assembled was necessary to ratify the actions of the mayor and council, but this it was found impossible to continue. The work of the city is now done almost entirely by commissioners, but the council alone controls the finances and alone can borrow money, alone can order taxation and appropriate the city funds, and legislative enactments limit its power of expenditure. The aldermen alone choose the commissioners of public works, police, and fire. No member of the council except the mayor is permitted to sit on either of these boards. There are six members of each, two of whom are chosen every year to hold office for three years. Each alderman can vote for only one of the two, and thus representation of the minority is assured. No one is allowed to be member of more than one of these commissions. Of the total city income of $653,465 those commissions expended $428,385 in 1884. The mayor nominates only the coroner, three commissioners of public health, and two park commissioners, and these nominations must be confirmed by the aldermen, or by both branches of the council. The two branches of the council appoint standing committees upon sewers, streets, squares, appropriations, auditing, building and claims. It is not easy to discover what influence any of them possess except the committee on finance; but as the board of aldermen may remove any of the commissioners by a two-third vote, upon charges made in writing by a member of either branch of the council, they probably exercise some. The officials of the city government number 252, of whom 65 are elected by the people. The elected officials hold office during the term for which they are elected. Nearly all the appointments to important offices are made by the board of aldermen, who thus become the centre of municipal activity, the law making and tax levying power, who dictate not only how much money shall be spent, and how it shall be spent, but who shall spend it. The mayor may preside in the board of aldermen, and there, as in the convention of the common council, he has a casting vote. In other cases he has merely what is called a delaying vote, the majority vote in each board being sufficient to overrule his objections. He is *ex-officio* member and chairman of several boards of commissioners, but on none has he a casting vote. He can make his influence felt, it is said, as chairman of the board of finance, to which are submitted the estimates for the year's services prepared by the heads of the several departments, and all accounts of the departments and officers. The dual system is not economical. The tax for city expenses alone was $9 a head two years ago, or $11 on the $1,000, and this, it is alleged, is probably nearly double the actual tax on the thousand upon a full valuation in either New York or Philadelphia. The ward system of elections was introduced about 34 years ago, and the effect upon the character of the common council has not been satisfactory. "What broad-minded and upright man" asks one writer "will care to sit in the city council knowing that he is expected to secure as large a slice as possible of the public funds for improvements in his locality—jobs which will bring money into his ward and into the pockets of the clique that worked for his nomination? How can any but the small minded man set himself to represent or to uphold the alleged 'interests' of a few square feet of ground".

In Baltimore, the mayor, who is elected for two years, appoints the city officers, "by and with the advice and consent of the two branches of the council in convention." The police of this city are under control of three commissioners elected by the state legislature, and the water supply is managed by a board composed of six citizens and the mayor.

St. Louis has improved greatly within a few years, but this seems to be due chiefly to its having almost on compulsion adopted the local improvement plan for the whole city. In this city the comptroller, auditor, treasurer, register, collector, recorder of deeds, inspector of weights and measures, sheriff, coroner, marshal, public administrator, president of the board of assessors, and president of the board of public improvements are

elected by the city at large for four years. The mayor, whose term is also four years, appoints the other commissioners and other officers subject to confirmation by the council. These appointments he makes in the second year of his term. Any elected officer may be suspended by the mayor, and removed by the council for cause. Any appointed officer may be removed by the mayor or council for cause.

In Chicago the city clerk, city attorney, and city treasurer are elected on a general ticket. Other officers are appointed by the mayor with consent of the council. The commissioner of public works has charge of all public improvements, and appoints and removes with consent of the mayor the heads of all the branches of his department. These are the city engineer, the superintendent of streets, the superintendent of water, the superintendent of sewerage, the superintendent of special assessments, and superintendent of ways. The building department is under the charge of another commissioner who appoints inspectors of buildings. A commissioner of health presides over that department and the city physician acts under his directions. A superintendent of police manages the police force, making appointments with the approval of the mayor, and the fire marshal is head of the fire department, and appoints all the officers and members of the brigade with the consent of the mayor.

The charter of the city of Philadelphla was amended frequently, and some of the methods now suggested in Toronto were tried. In 1876, the governor of the state, by authority of the Act of the legislature, appointed commissioners to devise a plan for the government of cities and they reported a uniform code, but no further action was then taken. In 1882, the city council appointed commissioners to prepare and present an improved method of city government. After seven months careful preparation they reported a scheme which with little change became law in 1885, and in its amended form this is the charter of the city. A memorial from the citizens in support of the bill said: "The affairs of Philadelphia have fallen into a most deplorable condition. The rate of taxation is as heavy as can be borne. The streets of the city are a reproach and a disgrace. Philadelphia is now the worst paved and worst cleaned city in the civilized world, The water supply is bad—during many months distasteful and unwholesome for drinking, and offensive for bathing purposes. Her system of sewerage is bad. The condition of the sewers is dangerous to the health and offensive to the comfort. Public works have been badly done, etc., etc." Could any mere change in the system of government rescue a city from such a condition? The people thought it could, and the main change to be wrought by the measure on which they placed such reliance was the complete separation of the executive from the legislative functions. They resolved to entrust the legislative functions to the council, but to do away with the old committee system, and to entrust to the mayor all executive functions, and hold him responsible for their proper discharge. The departments of the city government were also reconstructed. Some of the amendments made to the bill were important. The absolute right to appoint all the officers was not given to the mayor. The receiver of taxes, the treasurer, and the controller, are elected by the citizens for three years. The director of the department of public safety, (including health, etc.), and the director of the department of public works, are appointed by the mayor with the consent of the select council (board of aldermen), and hold office during the term (four years), for which the mayor is elected. He appoints in the same way the president and directors of the department of charities and correction, who hold office for five years. The mayor has power of supervision over the elected officers. All subordinate officers and clerks are appointed by the directors or chief officers of the departments, and they are protected by stringent civil service regulations. The departments, as reconstructed, are: the department of public safety, the department of public works, the department of receiver of taxes, the department of city treasurer, the department of city controller, the department of law, the department of education, the department of charities and correction, and the sinking fund commission. Under our system education is not under control of the city council, there is no need of a department of charities, and correction is provided for. A sinking fund commission has never been found necessary. There are only seven departments therefore to manage such affairs, and discharge such duties in Philadelphia as are under control of city councils in Ontario. Only three of these require special notice. The department of public

safety, which is under the charge of a director, includes police, health, and the inspection of buildings. The department of public works has charge of water works and gas works, of the repair and lighting of streets, of the construction and maintenance of public buildings, bridges, and other structures, of public squares, of the real estate of the city not used for police or educational works, of surveys, engineering, sewerage, drainage and dredging, of highways, wharves, and docks. A public buildings commission, which had been in existence, was continued, because the buildings begun by it were nearly completed. The department of the city controller is very important. The duties of this office resemble largely those of the Auditor-General of the Dominion and those of the Auditor-General of Ontario. The check upon the Mayor under this system, besides that which a healthy public opinion exercises, is that the council holds the purse strings, and that the mayor and other elective officers, where others are elected, may at any time be impeached for malfeasance on application of ten or twenty ratepayers to the proper court.

The revised charter of the city of Buffalo (of which we have not been able to obtain a full copy) provides that every ordinance and resolution of the common council, except those relating to certain appointments and to the internal affairs of the council, shall be presented to the mayor before it shall be of force. If he approve it, he shall sign it, but if not, he shall return it to the common clerk, with his objections. If the ordinance or resolution required in the first instance a majority vote to pass it, and two-thirds of all the members elected to the common council so resolve, it shall be of force notwithstanding the mayor's veto. If in the first instance it required a two-thirds vote, then three-fourths of all the members of the council must agree to pass it (over the veto) in order to give it force. If any ordinance or resolution is not returned by the mayor within ten days after its presentation to him it shall be of force. The common council, on the first Monday of January, appoints a city clerk, a commissioner of public buildings, a clerk of the markets, sealers of weights and measures, and such other servants as may be necessary. It considers the comptroller's estimates within one week after their presentation, and it may amend the same by a vote of two-thirds of all its members. It fixes the amount to be raised by assessment, orders what streets, alleys, and sewers shall be opened, repaired, and cleaned, and what other works shall be constructed or repaired. It has power to make ordinances of the usual character for the good government of the city, etc. The water commissioners are appointed by the mayor, with the consent of the council.

A pamphlet published by the city clerk of Detroit, in 1884, gives much interesting information respecting the affairs of the city at that time, and the constitution of its government. He states that the population was then 150,000 or more, that it doubled every decade, that the assessed value of the real and personal property was 110 million dollars, that the city taxes amounted to less than one per cent. on that amount—this is much less than the amount collected in Toronto last year—and that the total city debt is less than two per cent. Its schools, he says, are noted for their good work, in morals the city is better far than others of its size, the fire department is hardly second to any in the Union, the police is well managed and effective, the water is of the best, the sewerage, with a fall of over 20 feet, is excellent, the streets are wide and mostly paved, its shade trees are the delight of all who gaze upon them, its residences are unusally fine, and the annual death rate is only about twenty in the thousand. The city is governed by a mayor and a common council, composed of a board of councilmen and board of aldermen. The board of councilmen is composed of twelve members, elected for four years. Three are elected every year on a general ticket by the electors of the whole city. All nominations made by the mayor or any other officer, board or commission, must be confirmed by the board of councilmen. Ordinances or resolutions imposing taxes or authorizing expenditure, may originate in either board, but must be appoved by both. The board of aldermen, which seems to correspond with the body called councillors in other cities of the United States, is composed of 26 members, one of whom is elected in each ward of the city for two years. One half retire every year. The members of this board are paid $3 for each regular session. They can hold but one such session each week. They appoint one or more clerks of the market, weigh masters, wood inspectors, and the gas inspector. All accounts must be sent to this board first, and all contracts must receive its approval before they are sent to the board of

councilmen. But the duties of the city council are chiefly legislative. The water-works are managed by a board of five members, who hold office for five years. One is appointed each year by the board of councilmen, on the nomination of the mayor. The fire department is managed by four commissioners, whose term of office is four years. One commissioner is appointed each year by the board of councilmen, on nomination of the mayor. The board of works, established by special amendment of the charter, consists of three members, appointed by the mayor and confirmed by the board of councilmen. This board have entire control of all works of construction and repair in the city and of the cleaning of the streets. But they have not power to change the plan of any work, and they must report to the council on the progress of all works. All bills for work done under their supervision must be submitted to the council, on whose order all payments are made. Commissioners to take charge of the poor and commissioners to manage the house of correction, are also nominated by the mayor and appointed by the board of councilmen. The board of health consists of three practising physicians, appointed by the board of councilmen, on the nomination of the existing board of health, and the mayor, controller and president of the police commission are *ex officio* members. This board appoint a secretary, who is the chief health officer of the city. The police force of the city is under the control of a board of four commissioners appointed for eight years by the governor, by and with the advice and consent of the senate. By an amendment of the charter passed in 1883, a board of assessors was created, composed of three members, appointed on the nomination of the mayor. They hold office for three years. This board also act as a board of review. The board of aldermen and board of councilmen, in joint session, review the work of the board of assessors. At the same time "the requirement of the raising of a certain sum for the sinking fund was stricken out," and the common council were empowered to require any board, commissioner, or officer of the city to furnish facts and information relative to their conduct of affairs. The city has a revision court, the judge of which is elected for six years. The police justice is also elected at charter elections for four years.

The charter of the city of Waltham is regarded by some as the best in the United States. The mayor and twenty-one aldermen are elected annually on the same day. The mayor is elected by the city at large. Each of seven wards elects three aldermen. To the council so constituted the administration of all the fiscal, prudential, and municipal affairs of the city, and the government thereof, are entrusted. The mayor is the chief executive officer, and he presides at the meetings of the council. He is enjoined to cause the laws and ordinances, to be enforced, and to exercise supervisory and advisory, but not directory power over every department of the city organization. He may suspend any officer, and may suspend any work or payment, whether under contract or otherwise, for a period not exceeding ten days, but in such case he shall report his action and his reasons therefor to the board of aldermen, which shall take immediate action thereon. It is his duty to communicate information to the board of aldermen, and recommend such measures as in his opinion the interests of the city may require. All contracts must be signed by him, and he has control of the police, subject to the ordinances of the city. Every ordinance, order, resolution, or vote of the board of aldermen, except such as relate to the internal affairs of the board, or to the election of officers, which election is vested in the board, is presented to the mayor. If he approves of it, he signs it. If he disapproves of it, he returns it to the board. If, on reconsideration, two-thirds of those present, being at least a majority of the whole board, favour the passage of the ordinance, or resolution, it "shall be in force." If the ordinance or resolution be not returned by the mayor within ten days after it has been presented to him, it "shall be in force." If an ordinance or resolution embraces distinct subjects, or distinct items of appropriation or expenditure, the mayor may approve of the provisions relating to one or more of the subjects or items, and not approve of the others. In such case, he, within ten days, returns a copy of the portion not approved, and that is reconsidered. The mayor and aldermen appoint the police marshal and other officers, but the charter says "In all cases in which appointments are to be made by the mayor and aldermen, the mayor shall have the exclusive power of nomination, which nomination, however,

shall be subject to confirmation, or rejection by the board of aldermen." The board of aldermen have control of the city property, with power to sell, let or purchase, and have power to establish such offices as may be necessary, to elect all officers required to be elected by the ordinances of the city and such subordinate officers as may be elected by towns," to do what the previous town government were authorized by law to do respecting water supply and other matters, to lay out, alter, discontinue and renew highways, and do all relating to streets, sidewalks and sewers, for which authority is given by the general laws. But all the actual work is done by boards of which no alderman can be a member. The board of aldermen elect by ballot three persons to be assessors of taxes, who hold office for three years, one going out each year. They elect also, three persons to be overseers of the poor; three persons to form a board of street commissioners; three persons to constitute a board of water commissioners; three persons to constitute a board of health; six persons to constitute a board of directors of the public library, and six persons as a board of managers of the public cemeteries. These are elected for three years, and a third of the number in every case go out of office each year. The boards when elected appoint their own secretary, superintendents, and other officers, but these shall not be of their own number, and their compensation is fixed by the board of aldermen. The charter says "the board of aldermen may by its orders and ordinances prescribe the duties of and direct and control the administrative boards and officers in the performance of their duties, but shall not, through its committees, or otherwise than by such formal acts, exercise any authority over the administrative officers." On the other hand it provides "that no money shall be expended, and no liability of the city shall be incurred, by any board or officer of the city except in pursuance of an order of the board of aldermen. The board of aldermen shall appropriate annually the amount necessary to meet the expenditures of the city for the current municipal year; and such appropriations shall not be increased except by a vote of two-thirds of all the members of the board voting by yeas and nays." The board of aldermen are empowered and required to establish a fire department, but it is left to them to determine by ordinance "of what officers and members said department shall consist, prescribe the time and mode of their appointment and removal, define their powers, duties and periods of service, fix their compensations and make such other regulations regarding their conduct and government as the board deem expedient." The charter provides also that the city shall be so divided into seven wards, that "they shall contain as nearly as may be consistent with well defined limits, to each ward an equal number of voters." The chairman of the board of overseers of the poor, the chairman of the board of street commissioners, the chairman of the board of water commissioners, and the member of the school committee appointed for the purpose, are entitled to seats with the board of aldermen, and have the right to discuss all matters relating to their respective departments, but without the right to vote.

The charter of the city of Portland, Me., provides that the city shall be divided into seven wards, which, if necessary, shall be revised and altered every ten years, so as to preserve as nearly as may be an equal number of voters in each. The mayor is "elected by the inhabitants of the city voting in their respective wards". One alderman, three common councilmen, a warden and clerk, and two constables are elected by each ward. All are elected on one ballot. The seven aldermen form one board, the 21 councillors another. The mayor is chairman of the board of aldermen and of all joint meetings of the two boards. Every law, act, ordinance, resolve, or order requiring the consent of both branches of the city council, excepting rules and orders of a parliamentary character, is presented to the mayor for approval. If he does not approve of it he returns it with his objections stated to the branch in which it originated. On reconsideration a two-thirds vote of each branch is required to nullify the veto. In the charter, of which we have a copy, provision was made for the appointment of some officers by the mayor and board of aldermen, to whom were given control of the police and the fire department. Other officers were elected by joint convention of the city council, that is by the two branches acting as one body; others, as has been stated, were elected by the citizens. Probably this, which resembled the Boston system of a few years ago, has been changed. Three assessors were elected by the city at large for three years, one going out each year, and the city council elected an assistant assessor for each ward. Streets were laid out, widened, altered and

repaired, under direction of a joint committee of the two branches: sidewalks and sewers, were constructed, at the expense of the owners of the abutting properties. The care of the harbour was also entrusted to the council.

An Act supplementary to an Act of 1867, passed by the Legislature of Indiana, provides that any city incorporated under the laws of the State, and having a voting population of 15,000 votes or more, shall be governed by a common council and board of aldermen. Every such city shall be divided into wards, containing as nearly as possible an equal number of votes. The number of wards shall not exceed 25 in any case, and the number of electors in any ward shall not be less than 600. Each ward shall elect one member of the council for two years. The city shall be divided by the common council into five aldermanic districts, each formed of an equal number of contiguous wards; and each district shall elect two aldermen to serve for two years. The two branches, in joint convention, elect one set of officers "on the first Friday evening after the first annual meeting of the common council," and another set on the second Monday evening in November.

In the Provinces of the Dominion nearly all the city officials are appointed by the city council, and in no case, we believe, are any elected by the ratepayers. The tenure of office differs at least nominally. In some cases the officials are re-appointed *pro forma* every year. In others they are appointed for a longer term, and it is provided that they shall retain office until their successors have been appointed. In others, no limit to the term of office is fixed, but the Council may remove. In all, the appointments are virtually during good behaviour.

Audit.

The want of a thorough audit is felt throughout our whole municipal system. The reports of Dr. Snelling, Mr. Dymond, Mr. Munro, and Mr. Blakely, commissioners appointed by the Lieutenant-Governor in Council, under authority of the Municipal Act, show that in both the smaller and the larger municipalities there is no effectual audit, that as a natural consequence there are many gross irregularities, and that frauds have sometimes been perpetrated, which have not been discovered for years. In London extensive frauds escaped discovery for a long time. The recent examinations before Judge McDougall showed that large sums received on account of the Toronto water works remained unaccounted for, and later enquiries exposed many blunders and irregularities in some of the accounts. It did not appear that the auditors were so much to blame as the system which made their duties merely perfunctory in most respects. It is clear, however, that under the present system the audit is not a sufficient audit, although the accounts in most cases pass through several hands, and that it does not serve to secure a prompt and full accounting for all public money.

Nearly all whose opinions we received on this subject thought a thorough change in the audit system necessary. They agreed that in large cities the auditor—a few thought it would be better to have two auditors as hitherto—should devote his whole time to this work, that it should be his duty not only to see that accounts correspond with what are usually called vouchers, but also to make so careful and thorough an examination of each item that the concealment of fraud or misappropriation would be impossible. To enable him and his assistants to make such examination it would be necessary to give the auditor or his deputy power to examine the account books and other papers of all the receiving and expending departments at anytime, and to make such other enquiries as he thought necessary. To render the audit a complete protection some thought that there should in all cases be a pre-audit, and that no money should be paid in any case until the account or claim had been passed upon by the auditor.

Many thought, also, that at the commencement of each year the collector, there being but one, should file in the auditor's office one or more statements showing the amount of arrears due for revenue, the name of each person liable being given, and the sums payable by him. This should be countersigned by the treasurer as acknowledgment that it corresponded with a similar statement filed with him. As collections were made and paid over to the treasurer every week, or daily, the collector should send to the auditor a

statement in detail of collections and payments made, and this should bear the treasurer's acknowledgment. At the close of the season, or at any timethat it may be called for, the collector should furnish explanations as to the reason why taxes or rents yet due had not been collected. The accounts should also show what amounts were collected each week or day, as tolls, dues, etc. Copies of all by-laws or ordinances authorizing the levying of taxes and the payment or expenditure of money for any purpose, and copies of the assessment rolls, should be filed with the auditor, in order that he may prevent over-payment on any account, and any misappropriation, or any fraud. When payments on account of any contract were ordered he should have power to make such enquiries as would satisfy him that the amounts to be paid bore due proportion to the amount of work done, and in all cases he should have the means of ascertaining whether the accounts presented were for goods actually supplied, work actually done, or services actually rendered. One gentleman, who thought a thorough audit of the greatest importance, did not think that there should be a pre-audit. A thorough examination after the accounts were made up should, he thought, be sufficient.

The auditor should be competent, energetic, and thoroughly honest, and he should be absolutely independent. How could the services of such a man most certainly be secured, and how could his independence be protected? The majority thought that he should be nominated by the mayor and appointed by the council for three or five years, and that he should not be removable unless by a two-thirds vote of the whole council. In that way they thought a competent man would probably be selected. Others thought that the auditor should be elected by the whole body of the ratepayers, for one or three or five years. They contended that none but a competent man could be elected, and that an elected auditor would be thoroughly independent of all the influences which an appointed auditor may find irresistible. Others thought that although it may seem an infringement of municipal independence, the auditor should be appointed by the Lieut-Governor in Council, and hold office during good behaviour.

We have shown that in England the people of the boroughs elect two auditors at an election held especially for that purpose, that each elector can vote only for one of the two auditors, and that the mayor appoints a third auditor who must be a member of the council. We have shown also that in all the municipalities, urban and rural, created under the Public Health Act, and extending over all the rest of England, with powers deemed sufficient for all municipal purposes by hundreds of large towns, the local government board appoint the auditors. Under the Act of 1879, the country is divided into districts for this purpose, and to each an auditor is appointed who audits the accounts of all the rate-levying, money-expending bodies within his district. In Ireland, the auditors appointed by the Irish local government board have examined the accounts of the poor law boards from the beginning, and in 1871 the audit of the accounts of all the cities except Cork, Waterford, and Kilkenny, and of all the towns except those under special Acts, was transferred to these auditors. Nearly all the towns have since adopted the same system, and it now extends to the accounts of counties.

In some of the cities of the United States the auditors are appointed by the councils on the nomination of the mayor, in others by the board of aldermen on nomination of the mayor. In some they are elected. When the great changes were recently wrought in the system of government of Philadelphia, the old system of electing the collector, treasurer and controller was retained. A writer who admires the present system much, thinks that the collector and treasurer should be appointed by the mayor, but that there are many reasons why the controller should be elected. "He is so far as the accounts of the city are concerned the tribunal of last resort. He is to audit and settle the accounts of all the departments, and all the accounts in which the city is concerned. His position is peculiar, and as he acts as a check to all other departments of the city he may justly be considered as being apart and outside the general system of government." This writer states what the duties of the controller are in cities of the first class, as defined carefully in the Act of the Legislature, and says that so much care has been taken to define his duties, because he is the most important and responsible officer in the city government, and each of these provisions has been shewn by the many struggles and hard experiences

of the past to be necessary in order to guard against various abuses in the management of the city finances. One section of the Act provides that whenever a warrant or claim shall be presented to him he shall have power to require evidence that the amount claimed is justly due, and for that purpose may summon before him "any officer, agent, or employe, of any department of the city, or any other person, and examine him upon oath or affirmation relative to such warrant or claim."

In all the cities of the Dominion the city councils still appoint the auditors. We seldom hear of frauds, or misappropriations discovered and reported upon, or of surcharges made in any of those cities.

It is enough to state that the expenditures for all purposes were $3,702,643 in the city of Toronto alone in 1886, to show how necessary a real audit is. The expenditures were comparatively as large in other cities.

Assessment.

There are numberless modes of municipal assessment, and no one of them, we believe, gives entire satisfaction. There are also marked differences as to the distribution of the burden of taxation.

In Great Britain, municipal and local taxation of all kinds is borne by real estate exclusively, and the burden is often felt to be very heavy. Efforts have frequently been made to transfer a share of the burden to personal property and to incomes, and some of the latest writers urge that this would be only just. But the opinion of nearly all the leading statesmen and public feeling are opposed to such a change. The great landowners are reminded that those from whom their titles are derived obtained the lands on condition of maintaining an armed force sufficient to preserve peace, enforce the laws, and repel invasion, and that the landowners in the reign of Charles the Second, taking advantage of the state of things then existing, got rid by Act of Parliament of such of the feudal obligations as yet remained, giving nothing in return but a tax on the people at large. They are also told, as Mr. Gladstone put it, that if from the personal property and the earnings of the people, contributions be taken towards the support of local services, then land must be made to contribute more directly towards the Imperial expenditure. It is argued too, and this argument appears to have much force, that the tax on real estate is most equitable, as real estate may always be fairly valued, and a tax on it is ultimately borne in fair proportion by all the people. The landowners, however, having had almost absolute control of both Houses of Parliament, have succeeded in transferring a considerable part of the burdens formerly borne by the land to the Imperial treasury. The general government now support all the prisons, and contribute largely to the support of lunatic asylums, of the police and of some great highways. The Treasury subventions for England alone amounted in 1886-7 to £3,610,219, or about $18,000,000, and this large amount was really a grant in aid or relief of the great landowners.

We were unable to learn enough of the principle on which rates for local purposes are levied in any of the great countries of continental Europe, to make a comparison between theirs and what perhaps may be called the American system.

In the United States and in Canada the laws provide that the burden of taxation shall be borne by real estate, personal estate, and in most cases, income. According to the law of Massachusetts personal estate "for the purposes of taxation, includes goods, chattels, money and effects, wherever they are, ships and vessels, at home and abroad, money at interest and other debts due the person to be taxed more than they are indebted or pay interest for, public stocks and securities, stocks in turnpikes, bridges and moneyed corporations, within or without the State, the income from an annuity and so much of the income from a profession, trade or employment as exceeds the sum of $600 a year." The assessors are directed to fill up certain blank forms and to place in one column a description of all ratable cash assets, money at interest, etc., and the number of shares of stock which are taxable with the name of the corporation, in any bank, railroad, insurance, manufacturing or other incorporated company. Elsewhere it is enacted that bank and other stocks shall be rated according to their market value.

Of those whose opinions were obtained, all agreed that as the system now personal works, real estate is not fairly assessed, that the amount at which property is assessed is ludicrously low in many places, if not in all, and that the total amount which personal property and income contribute to the expenditure of a city does not compensate for the enormous amount of falsehood and misrepresentation to which the taxation of that description of property gives occasion. The following statements show that in the United States and Canada the valuation of personal property varies so much as almost to prove *prima facie* that this can not be an equitable basis of taxation. There must also be much difference in the mode of valuing real estate. In few places, if in any, is it rated at its fair market value.

	REAL ESTATE.	PERSONAL ESTATE.	INCOME.
Toronto	$69,469,789	$9,132,821	$4,906,097
Hamilton	16,180,200	4,396,570	
London	10,566,997	1,741,125	997,470
Kingston (1887)	5,366,525	1,060,106	465,890
Ottawa "	10,348,000	1,197,000	
Montreal	78,310,281		
St. John, N.B	9,084,800	7,691,500	2,702,300
Halifax, N.S	15,091,000	4,434,210	

In the Hamilton, and Ottawa statements personal property and income are added together to make the amount given above. Montreal levies no tax on personal property or income, and Halifax no tax on income. It affords strong evidence of the impolicy of the tax on personal property as now levied, that the personal property of St. John, N.B., with a population less than 30,000, should, according to the assessors, be worth almost as much as that of Toronto, with a population nearly five times as large, and that the value of the personal property of Halifax, whose population and wealth are greater, should be rated at less than sixty per cent. of the amount at which the personal property of St. John is rated. The law regulating the assessment in all the cities of Ontario is the same, yet the proportion of the value of personal property to the value of real estate differs widely in them all, being much smaller in Toronto and Ottawa than in any of the other cities.

We have not been able to obtain full statements as to the assessments of any of the cities of the United States, but we find that in New York the assessors' valuation of real estate is but some sixty per cent. of the market value, and that the assessed value of the personal estate, $197,546,000, is less than one-fifth of the assessed value of the real estate. The proportion is much larger than in Toronto, yet Mayor Hewitt is reported to have recommended in a recent message that the tax should be abolished, because it is found impossible to make it bear fairly.

In Boston, the assessors' valuation of real estate is nearer to its market value and the assessed value of personal property is two-fifths of the whole assessed value of real estate. It may be roughly stated that personal property bears three times as much of the taxation in Boston as it bears in New York.

Some, however, contended that personal property should bear a full share of the general burdens of the municipality, and that means should be devised for an equitable apportionment. These all agreed that although it might have been good policy to make the tax on money invested in banks, loan companies, etc., very light when the ordinary rate of interest on the best securities was from eight to ten or even twelve per cent., there is no longer any good reason why $10,000 invested in business should be taxed on the full amount, and a like sum invested in a bank or put out on mortgage should pay only on the $700 or $800 interest or dividend which it may yield. All personal property they contended should be taxed alike, and if it is thought that the tax should not be as high as on real estate, then there should be a fixed uniform relative rate for personal property of all descriptions. Those

who thought that the tax should be regulated by the benefits received contended that stocks in trade should be assessed to their full average value no deduction being made for any debts due by the nominal owner. Another who thought that a man's contribution to the city's revenue should be regulated by his ability to pay, suggested that business men, like professional men, and others should be taxed on the amount they make each year, and that this could be pretty well ascertained by requiring every one in business to make a statement of his income, and make solemn declaration to the truth of his statement. Any one making a false statement should be subject to heavy penalties. This is the principle of the Quebec general Municipal Act, as it appears in the Consolidated Statutes. That Act provides that "the valuators shall make the valuation of all the real and other assessable property according to its true and real value, and that every merchant, manufacturer, trader, and master artificer . . . shall by reason of such trade, business or calling, be liable to assessment and the value of his business shall be estimated as a distinct property according to the average annual profits thereof, based upon the proceeds of the next two preceding years."

In the cities of Montreal and Quebec, personal property is not taxed nor is income, but a tax is levied upon all hotel or tavern keepers, brewers, distillers, merchants, traders, manufacturers, banks, bankers, brokers, and money lenders, auctioneers, grocers, bakers, butchers; railway, telegraph, telephone, insurance, steamboat, and steamship companies, managers of theatres; and generally on all trades, manufactures, arts, occupations, and professions, such tax not to exceed—in Montreal—seven and a half per cent. on the annual value of the premises in which such parties carry on their business or exercise their trade.

Besides this, fire insurance companies are required to pay a special tax not to exceed $400 in any case; life and marine insurance companies not to exceed $200; banks a tax, not to exceed $400 if the paid up capital do not exceed a million, an additional $100 if the capital exceed one but do not exceed two millions, and $600 if the capital exceed two millions; gas companies pay a tax not exceeding $5,000, but only their immovable property is taxed beside; and telegraph and telephone companies pay a tax not exceeding $400 each. Special taxes are imposed also on peddlars, carters, owners of horses and vehicles, money lenders, commission merchants, brokers, pawn brokers, inn-keepers, and brewers. With regard to these latter, the law sets no limit to the tax. The owners of real property are liable to such tax as the council may impose, not to exceed one and a quarter per cent. of the assessed value, and tenants of dwelling houses may be assessed on the assessed value of the rents of their houses or tenements. The business tax, as it is called, yielded more in Montreal in proportion to the amount paid by real estate, than the tax on personal property and the taxable income yielded in Toronto. The amount collected in 1886 from personal taxes was $166,970. This was more than a fifth of the amount paid by the owners of real estate and the occupiers of dwellings, which amounted to $798,041. In Toronto, the amount assessed on personal property and income was less than a fifth of the amount assessed on real estate.

A few contended that an income derived from a business or profession should pay as much as an income derived from real estate. So far did this idea prevail in St. John, New Brunswick, for many years, that one thousand dollars income paid as much as $5,000 real or personal property. The injustice of the law forced the assessors to rate incomes at much below what they were, except in the case of those in public employment, the amounts of whose salaries were publicly recorded.

The charter of the city of Halifax states that all household furniture, moneys, goods, chattels, wares and merchandise, ships and vessels, and shares in ships and vessels owned by persons residing in the city, or having a place of business in the city, whether such ships be at home or abroad at the time of assessment, all public stocks except Provincial and city debentures, all stocks in public or private banking companies, water, gas, fire, marine, or life insurance companies or associations, shall be assessed as personal property. In St. John, N.B., the local banks are assessed directly on the full value of their paid up capital, and outside banks having branches in the city are assessed on the amount of capital employed in those branches.

Wherever the local improvement system is adopted for a whole city much of the expenditure hitherto general will be transferred to the properties improved by making, repairing or cleaning sewers, streets, and sidewalks. Still, the amount assessed for the support of the city government, the payment of interest, the maintenance of the police and fire departments, etc., must always be large, and it should be equitably distributed on some well defined principle. The fact that personal property is nowhere rated at even one-half its real value leads inevitably to the conclusion that if assessed at all it should not be expected to pay as much dollar for dollar as real estate should pay.

Complaints as to the manner in which real estate is valued for the purposes of assessment come from all quarters. English writers complain that although efforts have been made to have the valuation for poor law purposes adopted as the basis of several assessments, there are still three distinct valuations, and owners and occupiers pay on three different valuations of their properties. How much better, say these writers, is the state of things in Scotland and in Ireland, where there is only one valuation. But Scotch writers complain that because the assessment boards are composed chiefly of the Commissioners of Supply, who are landed proprietors and who appoint generally the inland revenue officers to make the assessments, and because the court of appeal is composed of landed proprietors, the landlords' mansion houses, policy parks, gardens, pleasure grounds, and plantations are rated much below their value. Much of Scotland is now used as deer ranges and shooting grounds, and these are valued not according to the rents at which many of them are let, but according to the assessed value of the land for agricultural purposes. One forest let for £1,330; another of equal extent and value not let was assessed at only £140. The Griffiths' valuation served some good purposes in Ireland, but it has long ceased to furnish a proper basis for assessment. The valuation in England appears to be better on the whole than in either of the other two countries. Perhaps, the three separate valuations serve as a wholesome check, one upon the other. In 1885 the gross estimated rental of England and Wales was £175,044,207, and the poor law valuation was £147,350,652, In the same year the gross valuation for income tax purposes made by Imperial officials was £159,942,433. These differences are trifling compared to what we are accustomed to on this continent.

If all properties were valued fairly on the same principle it would matter little whether the assessed value were the full value, or seventy-five, or fifty per cent. of the full value. But where personal property and income are also assessed, the under valuation of real estate is calculated to throw an undue share of the burden on personal property, as an under-valuation of personal property and income increases the share of the burden that falls on real estate. For many reasons, it would be much better that real estate should be assessed as the Ontario law provides, at its fair market value. Injustice is seldom done by rating a property at more than its value. It is in almost every case done by the under-valuation of the property of some of the ratepayers of a city, or district. Redress is easily obtained when a property is rated above its market value. But redress is hardly ever obtained for the injustice done to some ratepayers by undervaluing the property of others. Few men care to incur the odium which would fall upon them if they demanded that the rating of their neighbour's property should be increased.

The tendency to low valuation is found everywhere. It spares the assessors and all connected with the business of assessment much trouble, preventing the appeals which would be numerous were an earnest attempt made to rate properties at their real value. Where, as in the case of our townships, several districts are required to contribute to general expenditures according to the assessed value of the property in each, assessors sometimes regard it as a duty to value everything very low and so reduce the amount of the taxation for general purposes, which their district must bear. Where the assessment list is the basis of the electoral franchise, party considerations, it is to be feared, have a disturbing influence on the assessment.

The figures we have given above show how strangely at variance are the conclusions at which assessors in Ontario, employed to carry out the same law, seem to arrive. A comparison with the assessed value of the properties of other cities shows that a really fair and satisfactory assessment is not to be found in either Canada or the United States. The assessed value of real estate in Toronto is low compared with the prices at which

property sells every day. In most cases the price paid exceeds the assessed value by from twenty-five to one hundred per cent., yet the assessed value of the real estate of Montreal, which is a much larger city and more substantially and expensively built, is little more than that of Toronto. We are told that the assessed valuation is in New York about sixty per cent. of the market value, and in Philadelphia about two-thirds of the market value. This must mean that in numberless instances great injustice is done. Chicago still retains the old-fashioned connection with the county in which it is situate, and as a means of escaping payment of more than its share of the county expenditure, it has reduced the assessed value of its real estate, as no doubt the outlying townships did, and now the assessed value is but from a fifth to a third of the market value of the real estate in that city.

The only means by which injustice can be prevented is the strict carrying out of the law as it is, if posssible, the relations of real estate, personal estate, and income having been first established on a just and reasonable basis if the tax on personalty and income is to be retained. The real difficulty in the way is that of valuation, and all the means yet employed to overcome that have failed. Some now suggest that men, thoroughly competent should be employed every three or five years to value all the property in the cities, as is done in London and other large cities. Some contend that greater security for a fair valuation would be had if these men were appointed by the Provincial Government. Others prefer that they should be elected by the city at large. Assessors were elected in Boston and other American cities. Revisers of assessment, whose duty it seems to be to correct any blunders made by the poor law assessors, are elected in the English boroughs at a special election, and to secure competent men each elector can vote but for one of the two. Means could be taken for including in the assessment buildings erected between each valuation. To this system it is objected on behalf of Toronto that the city is growing so rapidly, and the increase in the value of property is so great every year, that an annual valuation is necessary. How an annual valuation can be made as fair and equitable as it should be is a serious question.

The valuation having been made on the principle of rating each property at its fair market value, there should be a thorough revision of the assessment by men competent to judge of the value of property in every part of the city. It is said that the commissioner of assessment now discharges this duty in Toronto, and the by-laws of the city provide that the assessors appointed by him, on the mayor's nomination or *vice versa*, should with the commissioner form an assessment board for the discharge of some such duty. But as far as we could learn no such board ever makes serious attempt to do that work, and it may be doubted whether the assessors are the proper parties to revise and correct in a body the work done by themselves individually. Two or three competent men acting with the commissioner or independently could revise the whole property assessment in a few days. If this were done, as nearly all the gentlemen whose opinions we obtained agreed, what is now called the revision court, may be abolished. The only appeals now made to that court are made by persons who think that their properties are over-valued, or who, at all events, hope to get the valuation reduced. Appeals to the judge of the County Court would afford ample protection against excessive valuation.

Complaints were made that the law as it now stands unduly favours the speculators who hold lands near cities and towns, for an advance in price, as unless such lands have actually been offered for sale in building lots, or the assessors can say that portions of them will probably be sold for building purposes within a year, they are to be assessed on their value for farming purposes. Many large blocks of land, which have frequently passed from one speculator to another, are thus rated. Such lands, like all other property, should be assessed on their actual market value.

Debt and Taxation.

There has been a great tendency to run into debt in all the municipalities of Great Britain, the United States and Canada for some years past. This has been due in part

to the rapid growth of cities and towns; partly to the fact that crowded communities have become more alive to the great importance of making sanitary and other improvements; and partly to the greater facility in raising large loans, and the fall in the rate of interest. Even in old English cities large expenditures were found necessary. In the newer American and Canadian cities it was necessary to construct a proper system of sewers, make and pave streets, lay down sidewalks, and carry out other improvements for one, or two, or five hundred thousand people all within a few years. In the cities of this continent public works of all kinds cost more than in England, because materials and labour are dearer, and because there is a greater tendency to extravagance and jobbery. In England the total of all the debts of the "local authorities" amounted in 1874-5 to £92,820,100, and in 1884-5 to £173,207,968. In the United States, in 1870, the debts of all municipalities amounted to $515,810,000. and in 1880 to $821,486,447. We have no means of ascertaining what the total indebtedness of the municipalities of Canada is, but the net debenture debt of Toronto, deducting the amount of the sinking fund, at the close of 1886, was $7,895,708. This was more than six times the whole amount received from taxes in that year, which, including the school taxes, was $1,289,395. The debentures sold amounted in that year to $668,820. The amount paid as interest was $481,003, nearly two-fifths of the whole amount of taxes collected. Of this, $33,207 was paid on bank loans.

Hamilton received $356,256 taxes, including school tax, and paid $147,246 in interest, besides $3,021, which went to its sinking fund. Kingston received $101,804 taxes, and paid about $22,500 interest on debentures. Ottawa received $225,461 for all taxes, exclusive of water rate, and paid $63,417 interest on debentures, and $10,421 interest on other amounts, and $62,944 interest on account of water works. The debts of the cities of the other provinces are in some cases even larger in proportion to their revenue. The funded debt of Montreal is $12,682,400, and the net debt, deducting the amount in sinking fund, is equal to about ten times the amount raised each year by taxation. The assets, however, including water works, markets, fire department, station services, cash on hand, and arrears due for street improvements, are estimated to be worth over sixteen millions. Montreal paid last year $582,135 as interest, and a large amount to its sinking fund, and its whole income from the tax on real estate was only $798,041. Halifax owed $1,702,145, and the total civic assessment, exclusive of water rates, but including school tax, was $274,104. The amount paid as interest was $87,900.

The total funded debt of St. John, N.B., (on the east side of the harbour, population say 26,000) was $1,048,570, for which the city council issued debentures. Besides that a debt of $1,318,321 was contracted by the commissioners of water supply and sewerage, who themselves issue debentures to cover the cost of all works of construction carried on by them. Debentures for $239,050 were issued by the school trustees. The total debt, deducting sinking funds, is about two and a half millions.

It appears to be thought desirable everywhere to put a limit to the common law right of municipalities to incur debt. In Great Britain no borough can contract a new debt without the sanction of the treasury board, and none of the other municipalities without the sanction of the local government board, which is not obtained until that body have been satisfied that the proposed expenditure is proper and expedient. In most cases the board send their own inspector to make inquiries on the spot, and they are guided by his report. Then the authority they can give is but provisional. The power to borrow is not complete until authorized by Act of Parliament. This the board promotes.

In the United States, extravagance and waste have created a strong feeling in favour of the "pay as you go rule." There must, however, be many cases in which sound policy demands that extensive improvements should be carried out as soon as possible, and that payment of the cost should be extended over years. In the villages and some of the cities of the state of New York, by-laws respecting money matters can be passed only by the ratepayers. In Pennsylvania the legal limits to municipal indebtedness is seven per cent. of the assessed value of the taxable property. In other states other restrictions are imposed. In Quebec, no by-law can have any affect until approved of by the Lieutenant-Governor in

Council, and there are other restrictions. In New Brunswick and, we believe, in Nova Scotia also, no money can be borrowed without express authority from the legislature.

In Ontario there are two restrictions. The one is that any by-law authorizing an increase of debt must receive the sanction of those who pay taxes on property. The other is that the rate of municipal taxation for all purposes shall not exceed two cents on the dollar of assessed value. This second restriction is of no more value than similar restrictions in the United States have been. As a maximum, two cents is very high, and the power to borrow may be increased almost indefinitely by merely increasing the assessed value of property. That the assent of those who pay taxes on property is required has not proved so useful a restriction as was expected is now generally acknowledged. The safeguard against impolitic or improper action in such matters would be materially strengthened if the assent of at least a majority of all entitled to vote were required. It has been suggested that it would be well also if by-laws authorizing loans could be submitted to the ratepayers only at certain fixed times, and if any by-law that was rejected, could not be submitted for approval again, until at least a year had elapsed. The vote is often very small, even when the ratepayers are asked to consent that very large liabilities shall be incurred. And the more frequently the ratepayers are called upon to vote on such questions, the smaller does the vote become. The necessity for increasing the debt is seldom so great that the delay of a few weeks or months would do much harm, and the time for taking the vote of the ratepayers could be so appointed as to give all property owners a fair opportunity of expressing their opinions.

The constitution of the State of Pennsylvania provides that "the general assembly shall not authorize any county, city, borough, township, or incorporated district, to become a stockholder in any company, association, or corporation, or to obtain or appropriate money for, or loan its credit to any corporation, association or individual."

From many parts of this province, a demand now comes that municipalities be deprived of the power to grant sums of money in aid of business undertakings. Formerly many municipalities were induced to vote subsidies to projected railroads. They were frequently misled, and the advantages on the promise of which they voted large amounts some have never been allowed to enjoy. Where they were promised competition and reasonable freight rates they have in many instances combinations and high rates. In such places, especially, the ratepayers find the tax they must pay in liquidating railway debts a heavy burden. Yet it is probable that the people are, on the whole much better off to-day than they would have been if they had never been permitted to promote the construction of railroads by subsidies or by taking stock. At present a mania for promoting the growth and prosperity of towns and villages by subsidising manufacturing enterprises is widespread. The people of some of these places would feel much aggrieved, no doubt, if they were prevented from doing what they believe will enhance the value of their properties and give them greater opportunities of becoming wealthy. It would not put an unreasonable restriction on the right of any community to use its own means in the way that seems to it best, to require that when it is proposed to give a subsidy or loan, or special assistance of any kind, involving the taxation of all residing in the municipality, this should be approved by the votes of three-fifths or of at least a majority of all the ratepayers on property.

As another means of preventing municipalities from becoming heavily involved in debt, the law of Pennsylvania requires that "every contract for public improvements shall be based upon the estimates of the whole cost, furnished by the proper officer, through the department having charge of the improvement, and no bid in excess of such estimate shall be accepted." This though useful is scarcely sufficient to prevent the evils which have arisen from the practice widely prevailing in the cities of the United States, and not unknown in Canadian cities, of accepting tenders for public buildings, and other works, which do not in fact represent one-half or even one-fifth of what all, immediately concerned, know the work will ultimately cost.

The following brief statement, taken from the report of the Bureau of Industries, shows how heavy are the burdens now borne by the people of the principal Canadian

cities, and how important it is that in doing all that is necessary for the health, comfort and convenience of the inhabitants and the accommodation of trade, the strictest economy should be practised :—

		Real property.	Personal property.	Municipal taxes.	School taxes.	Per head of population.	Mills on the dol.
Kingston,	1881,—	$ 4,419,360	$ 1,046,517	$ 72,368	$ 18,088	$ 6.34	16.5
"	1885,—	4,905,205	1,473,928	92,816	22,540	7.57	18.1
London,	1881,—	7,896,216	2,298,703	180,450	38,484	10.85	21.5
"	1885,—	9,750,571	2,659,402	225,862	36,930	10.01	21.2
Ottawa,	1881,—	9,485,000	933,000	161,479	37,377	8.02	19.1
"	1885,—	10,348,000	1,197,000	173,175	50,267	6.81	19.4
Hamilton,	1881,—	12,964,280	2,682,200	234,697	53,000	8.00	18.4
"	1885,—	15,264,380	4,182,160	291,698	57,500	8.73	18.0

In the Toronto and Ottawa statements no account is taken of the water rates collected, and probably similar omissions are made in the other statements, as a water rate is in many cases regarded not as a tax, but as a price paid for value received.

In 1873, the population of Hamilton was 30,201, the total assessable property $12,680,770, and the total taxes $228,253. In 1887 the population was 41,712, the total assessable property $20,576,830, and the total taxes were $386,671.

Toronto has grown more rapidly than any other city of Ontario, but the growth of expenditure has kept pace with the growth of population and of wealth, as the subjoined table, prepared by the city treasurer, shows. The great increase in the assessed value of property since 1885 has caused an apparent reduction in the rate of taxation, but the assessed values are said to be still far below the market values in most cases:—

ASSESSMENT STATISTICS—CITY OF TORONTO—1879 TO 1887.

Year.	Value of Real Property.	Value of Personal Property.	Total Value of Real and Personal Property.	Rate.	Total City and School Tax.	Dog Tax.	Statute Labor Tax.	Arrears of Taxes.	Local Improvement Rates.	Grand Total of City Taxes.
	$ c.	$	$ c.	Mills.	$ c.	$	$	$ c.	$ c.	$ c.
1879	41,212,757 00	8,544,805	49,757,562 00	17½	870,763 52	3,387	2,562	2,157 71	43,239 13	922,109 46
1880	42,020.155 00	8,146,484	50,166,639 00	17	852,896 78	3,331	2,452	1,731 70	45,311 82	905,723 30
1881	44,151,186 99	9,389,724	53,540,910 99	16½	883,425 03	3,372	1,790	1,274 25	46,255 12	936,116 40
1882	45,973,366 00	9,985,973	55,959,339 00	15½	867,369 75	3,378	1,546	3,161 70	61,216 31	930,955 35
1883	51,271,019 00	10,683,616	61,954,635 00	15½	960,296 84	3,791	1,154	11,572 22	131,381 64	1,091,620 44
1884	54,821,478 00	11,370,833	66,192,311 00	15½	1,025,980 82	4,011	1,382	1,670 76	95,292 75	1,112,208 41
1885	57,424,589 00	11,563,142	68,988,567 00	17	1,172,805 02	4,481	1,098	2,939 56	139,488 45	1,304,717 86
1886	60,472,766 00	11,714,899	72,187,665 00	16½	1,191,096 47	none.	1,228	1,653 98	147,472 46	1,322,648 22
1887	69,469,789 00	13,789,564	83,259,533 00	15¾	1,311,337 64	none.	1,298	993 24	170,112 09	1,482,555 68

Toronto, 6th February, 1888.

The total municipal expenditures last year were in Kingston $203,764, in Hamilton $819,046, in Ottawa $618,344, and Toronto $3,416,543.

The expenditures for municipal purposes are much larger in proportion to size, population, and wealth in the cities of the United States than in the cities of Europe or Canada, and the increase has been very great within a few years. The appropriations to carry on the government in 1884, exclusive of payments on account of interest on debt, State tax, and county tax, were in Boston $9,909,019, equal to $27.30 for each inhabitant; in New York $20,232,786, or $16.76 per head; in Philadelphia they were $8,599,196, or $10.15 per head; and in Cincinnati $10.63 per head. The taxes in Toronto for all purposes (water rates excluded) were $10.65 per head in 1885.

Municipal Properties

It has been urged that the guardianship and control of all real estate belonging to a city should be invested in the mayor, and that in the disposal of any part of it the initiative should rest with him. But no lease should be made without express consent of the council, and no part of the city property should be alienated conditionally or unconditionally, nor should any lease for a long term, or with covenants for renewal be valid, unless with the express sanction of two-thirds of the council.

Commissions.

In the time of the close corporations the custom arising from necessity grew up of entrusting the construction and management of important works to special trustees or commissioners appointed by authority of a special Act of Parliament. To this day such works as the Liverpool docks are controlled and managed by trustees. The example of England was followed in this, as in other respects in the United States and Canada. There is something to be said in favour of that system, as if competent, respectable, earnest men were selected as commissioners, a work would be carried to completion without those changes which often mar the design and always involve much additional cost when change of control is frequent. But experience seems to have shown that, on the whole, the disadvantages of such a system outweigh its advantages, and that it is wholly unnecessary where the government of the municipality is properly organized. The London Metropolitan Board of Works, we believe, did not require the assistance of special commissioners to carry out the great work of improving and completing the sewerage system of London. The New York council are now carrying on, through the ordinary city departments and officials, the great work for increasing the water supply of that city, and we hear of no charges of jobbery or corruption in connection with it. Since 1875 Boston manages its water works through a board, appointed by the mayor with the approval of the city council. In Pennsylvania the constitution now forbids the general assembly to "delegate to any special commission, private corporation, or association, any power to make, supervise, or interfere with any municipal improvement."

In Montreal and Quebec, the water works and all public services are, we believe, under the immediate control of the city council. In St. John, N.B., the water supply for the city and for the adjacent city of Portland is drawn from the same source and through the same main pipes. This rendered joint control necessary and commissioners were appointed, two by the council of St. John one of whom is chairman, and one for Portland, at first by the sessions, but since Portland was incorporated, by the council of that city. The water works previously owned by a company were, when purchased by the city, transferred to these commissioners who were appointed under a special Act of the legislature and empowered by the same act to extend the works, to issue debentures to a limited extent in order to raise money to pay for extensions and improvements, and to levy, assess, and collect every year such sums as are necessary to pay the interest on the loan and the cost of maintenance and management. They do not require the approval or assent of the council for anything they do, but they must send their accounts to the council at the close of the year. The commissioners of water supply were afterwards made commissioners of sewers, and powers as ample were given to them for that purpose. In Halifax the extension and maintenance of

the water works are given in charge to commissioners who, however, merely carry out the instructions of the council and do not regulate or collect the water rates.

Where the public works department of a city is properly organized, possesses sufficient powers and has a competent man at its head, the appointment of a commission for carrying on any public improvement should be unneccessary.

The Powers of Municipalities.

Those who think that our large cities should have special charters, said that under the general Act a city like Toronto can not possess and exercise all the powers necessary for its good government. But no one seemed prepared to state what powers the city council should have that they do not now possess and wield. Further enquiry may possibly show that an enlargement of the powers of councils in some respects, and a better definition of their powers in other respects would be useful. The municipalities of all classes in Ontario possess more power in some respects than are possessed by the municipalities of the other Provinces, or by the cities that have charters. The approval of the Lieut.-Governor in Council is not necessary to give validity to any by-laws except those of which it may be said that they seem to lessen the security on which the creditors of the municipalities lent them money. The Lieutenant Governor in Council can not in any but the few exceptional cases named in the Municipal Act, interfere in any way with the free action of the municipalities. The provision of the Act which requires that by-laws authorizing loans shall be submitted to the ratepayers, merely means that in such matters the municipality shall act in a special way. It is still the municipality that acts, and its action is perfectly free.

Some representations on this point came to us in writing. One was from a gentleman who thinks that the city councils have not power to compel the extension of lanes from street to street when that may be thought desirable. We have seen no reason to conclude that the city council have not now sufficient power to deal properly with such cases.

Complaint was also made that there is no law for the proper regulation of the means of egress from churches and other buildings used for public meetings, or as places of amusement, or that with the exception of the Special Act which requires that the doors of such buildings open outwards, the law is inoperative in this respect. The Toronto commissioner of streets thought that he could only advise in respect to such matters. Section 20 of the Act passed last session authorizes municipal councils to make by-laws regulating the size and number of doors in churches, theatres, halls, and other buildings used for public worship or public meetings, or as places of amusement, and the street gates leading thereto, also the size and number of doors, halls, stairs, and other means of egress from all hospitals, and other public buildings, and the structure of the stairs, and stair railings, in all such buildings, the strength of the walls, beams, joints, and their supports. This seems to give municipalities the power to prevent or remove all cause of complaint except as to the internal arrangements of such buildings. These it has been represented to us are in some cases such as to render egress difficult when the buildings are crowded.

Another wrote asking that the law be so amended that the council or, in Toronto, the police commissioners, should have power to refuse to license a livery stable if it were to be established or continued in a place that the council or the commissioners might object to. This is one of those matters affecting the rights of property with which the Legislature always deals very cautiously.

The law of Massachusetts, relating to Municipal Government, enacts that:—

"Whoever occupies or uses a building in any maritime place for a livery stable, except in such part thereof as the mayor and aldermen or select men shall direct, shall forfeit a sum not exceeding fifty dollars for every month he so occupies or uses such building, and in like proportion for a longer or shorter time.

"Whoever erects, occupies or uses a building for a stable for more than four horses in any city or town, except in such part thereof as the mayor or aldermen or select men direct, shall forfeit a sum not exceeding fifty dollars for every month he so occupies or

uses such building, and in like proportion for a longer or shorter time; and the Supreme Judicial Court or any one of the justices thereof, either in term time or vacation, may issue an injunction to prevent such erection, occupancy or use without such direction."

Counties, Townships, Towns, and Villages.

County Government.

We have not been able to make such careful enquiry into the working of our Municipal system in counties, townships, towns separate from counties and villages, as would enable us to say with certainty what are generally regarded as the defects of the system in their regard. We found, however, in the course of our enquiries, that there is a very urgent demand for amendment in some important particulars.

Several counties, it is alleged, if not all, have outgrown that part of the system by which county councils are constituted. The councils have in many cases become almost as large as a Provincial Legislature—much larger indeed than any of the legislatures of the Maritime Provinces—and the increase in the number of members, while it adds greatly to the cost, serves in many cases rather to obstruct and prevent, than to promote the satisfactory discharge of the duties of the council. These duties, which are not many or onerous, could in most cases be efficiently discharged by a few intelligent men in a few days. The amount of money to be provided and disposed of seems to be large—in some cases exceeding $150,000, but the councils really control only a comparatively small amount in any county. With regard to the expenditure for schools, for the support of gaols and court houses, and the interest payable on debentures, their duty is little more than to ascertain the amounts and make the necessary formal orders. In Simcoe, for instance, the county council now numbers 57. If Muskoka be detached the number will be reduced by eight; but three other members will probably be added this year or next by the operation of the present law. The county revenue is nominally $42,000, but the amount actually to be disposed of by the council last year was only $14,000, and the pay of members ($3 a day and travelling expenses, ten cents per mile) salaries, etc., absorbed $6,000 of that amount, so that it cost $6,000 in this case to expend $8,000 for the good of the county. This council met three times during the year and their sessions lasted in all 17 days. They passed "a self-denying ordinance" some time ago, poviding that the members should not be paid for more than eight days of any one session no matter how long it may last. Probably the cost bears as large a proportion to the work done in several other counties.

All of whom we had opportunity to make enquiries agreed that the business of the counties would be better done—as well as more economically—if the number of members of the county councils were greatly reduced, but there was much difference of opinion as to the manner in which this should be done. Some thought it would be well if the county councils were abolished altogether, but they did not and apparently could not suggest any means by which the business those councils now do could be done immediately by the minor municipalities. The majority thought that the councils must be retained, but that the membership should be lessened.

In the legislative session of 1884 a select committee was appointed to consider this matter. They sent out a number of questions during the recess to the clerks of counties, townships, towns, and incorporated villages, and the replies they received were tabulated. Four hundred and seventy-nine stated that the feeling in their municipalities was in favour of reduction, 140 that the feeling was opposed to reduction, 4 that the feeling was in favour of abolition, and 99 that there was no agitation on this subject. Three were divided, three indifferent, and two actually favoured an increase.

Of those written to, 523 said that they were themselves in favour of reduction, 180 that they were opposed to reduction; six were in favour of reduction in large counties, and twenty in favour of abolition; 414 thought that legislation on this point should be compulsory, 171 that it should be permissive, and two that it should be permissive for a time.

Of those who were in favour of reduction, forty-four were reeves, deputy-reeves, mayors, and councillors at the time, eighty were ex-reeves, etc., nineteen were ex-wardens, and 127 were clerks of townships, towns, or villages. Of those opposed to reduction sixteen were reeves, mayors, etc., ten were ex-reeves, etc., four were ex-wardens, and twenty-nine were clerks of townships, towns, or villages.

Five county councils were in favor of reduction, and eight were opposed to it. Fifty councils of townships favoured reduction, and nineteen were opposed to it; twelve division granges were in favour of reduction, and one opposed to it. Of the members of the press forty-four favoured reduction, and seven were opposed to it. Ten reeves, mayors, etc., seventeen ex-reeves, etc., eight ex-wardens, and twenty clerks of townships, &c., wrote that there was no agitation on the subject.

Asked to state how they thought a reduction should be made, if made it must be:—

261 were in favour of doing away with deputy-reeves, and thought that each municipality should have but one member.

134 would reduce the number by "increasing the number of qualified votes required for deputy-reeves, say from 500 to a greater number."

79 were in favour of "dividing the county into districts and electing representatives therefrom."

229 were in favour of having only the reeve sent to represent a municipality, and of giving him as many votes as it is now entitled to.

95 were in favour of having county affairs managed by a board of say five elected by the popular vote, or by the township councils in such manner as representatives at the Board of Agriculture and Arts are now elected by the Electoral District Agricultural Societies.

67 would have the county councils constituted as at present, but would have them at their first meeting appoint small executive committees to transact the business of the year.

The committee after fully considering all these replies, found it impossible to arrive at any conclusion or to recommend any course of action to the Assembly.

A division of each county into a few electoral districts, each of which should elect one representative) or the election of a small number of county councillors by the county at large, would seem to be the simplest means of relieving such counties as chose to adopt it, from the large and unnecessary expense which the great growth of the county councils now imposes upon them. The only objections made to either of these proposals were that it is undesirable to increase the number of elections, already quite large enough, and that to many of those ambitious of serving their counties in the councils, reduction would be distasteful. A gentleman of great experience thinks that the easiest and most satisfactory solution of the difficulty is to enact that the reeve shall be the only representative from each minor municipality, and that he shall have as many votes as the municipality has representatives under the present system.

The county systems of England, Scotland, and Ireland, which we have briefly described elsewhere, afford no precedent for our guidance in the settlement of this difficulty, as none of the county authorities in those countries are elective, and none are paid directly for their services. In France those members of the municipal councils who are supposed to represent the people, are elected directly by the people in the larger as in the smaller municipalities. The municipal system of the Maritime Provinces differs essentially from ours. They have no parish or township councils and the only municipal councils, besides those of the few incorporated cities and towns, are the county councils composed of representatives elected by each parish, the number in each case being fixed by the Act of the Legislature. The township municipal system in all the States which followed the New England pattern in framing their local government, somewhat resembles our own, but the township municipalities possess somewhat larger powers and more is done directly by the people in town meetings assembled. The county system of Massachusetts and of all the States which have borrowed their municipal institutions from it, differs widely from ours. It may be well to describe at some length what that system is, as it appears in the Revised Statutes of Massachusetts (1882).

In the State of Massachusetts district attorneys, clerks of the courts, registrars of

probate and insolvency, sheriffs, commissioners of insolvency, county commissioners, special commissioners, county treasurers, and registrars of deeds are elected by ballot.

The Statute provides that the voters of each county of the State, except Suffolk and Nantucket, the circumstances of which are exceptional, "shall annually elect one county commissioner who shall hold his office for three years, and until his successor is elected and qualified. There shall be three county commissioners in each county, except Suffolk and Nantucket." The Statute further provides that each county shall every third year elect two special commissioners who shall hold office for three years. Not more than one of the county commissioners and special commissioners in each county shall be chosen from the same city or town (ship). When one of the county commissioners is for any reason unable to take his seat at the meeting of the board of commissioners, one of the special commissioners is called upon to take his place. The remuneration for the services rendered, fixed by Statute, varies in the different counties, being as low as $400 in Dukes, and amounting to $3,600 in Middlesex. The special commissioners are paid $3 a day and ten cents per mile travel, each way, when they serve. The remainder of the total allowance is divided amongst the county commissioners in proportion to the services rendered, the travel performed, and the expenses incurred. They are required to hold one meeting each year at the place and time fixed by the Statute, but they may hold an adjourned term or meeting at another shire town in the same county.

The county commissioners have authority to provide for erecting and repairing court-houses, gaols and other necessary public buildings, within and for the use of their county; to represent their county and to have the care of its property and the management of its business and concerns in all cases which are not othewise specially provided for; to establish a seal for their county, and to do such other acts as may be necessary to carry into effect the powers given them by law. What these powers are we nowhere find stated in full. All contracts for public works made by them, if exceeding $300, must be in writing. They furnish blank forms and envelopes for return of voters to the clerks of cities and towns in the county. No payments except of costs in criminal prosecutions, expenses of the courts, and the compensation or salaries of county officers established by law, payments in liquidation of outstanding notes or bonds and payment of interest on such notes or bonds, are made except upon orders drawn by the county commissioners, a record of which is kept by their clerk. They examine and allow the annual accounts of the county treasurer, and allow and settle all accounts of the receipts and expenditures of the county, but this is not the only audit: on the last day of each year they prepare and make up the estimates of taxes for all county charges and debts for the ensuing year, including the building and repairing of court-houses, gaols, houses of correction and other county buildings. The estimates so made up are recorded, and a fair copy, with a statement of the debts of the county, the amount of unpaid taxes, together with the treasurer's accounts are sent under seal to the office of the secretary of the commonwealth to be laid before the General Court (the Legislature) for examination and allowance. The county commissioners apportion all county taxes according to the then last state valuation, and by their clerk certify to the assessors of the several cities and towns their respective portion thereof, and also fix the time for the payment of the same; but no new assessment can be made on the towns of a county until the treasurer's accounts for the preceding year have been laid before the general court and allowed. The commissioners are required to publish an abstract of their account of receipts and expenditures every year in one or more newspapers of the county, and a statement of the debts of the county, the purposes for which they were contracted, and when they become due. They are also required to make a particular statement of all receipts and expenditures except the costs of criminal prosecutions and expenses of courts which may be general, and when the Board of Examiners have certified that this is correct, to have it published in a form suitable for distribution, and in sufficient number to furnish a copy for every 300 inhabitants.

Another statute provides that when a new highway from town to town, or from place to place within the same town, is wanted, or when a highway can with greater public convenience be altered or discontinued, application therefor shall be made by petition in writing to the County Commissioners, who shall cause a copy to be served upon the clerk

of every town interested, and cause copies or abstracts to be posted in public places. They shall view the premises when they deem it expedient or when requested by any party interested; shall hear the parties, thirty days from the service of the notice having elapsed, and adjudicate upon the common convenience and necessity of laying out, altering or discontinuing such highway. If they decide that the highway shall be laid out, altered or discontinued, they shall as soon as may be proceed to lay out, alter or discontinue the same, first giving such notice as the law requires. They may make such changes between the termini as in their opinion the public convenience requires, or they may order specific repairs if the necessity for the greater work can thus be superseded. They shall determine and specify the manner in which the work shall be done, and the time within which it shall be completed. It is the duty of the town or towns in which a road thus established, located anew, or altered, is situate to make the road or do the other work necessary. If they refuse or neglect, or the work is not done in the manner and within the time prescribed, the commissioners may cause the work to be done, and direct the cost to be paid out of the county treasury, and notice to be given to each delinquent town of the proportion it is expected to pay. If this be not paid at the time named, the commissioners may issue a warrant against the town for the amount, with interest and costs. The commissioners may, when a highway has been built or altered to their satisfaction, order that the whole or part of the expenses incurred by any town in doing the work shall be paid out of the county treasury. When the commissioners require a culvert, cattle pass, or other passage way, through or under a highway to be made and worked they may order the town to construct the same as part of the highway and may "reimburse to the said town" out of the county treasury, such portion of the cost, if any, as justice and equity may in their judgment require.

The select men, or road commissioners, of the several towns may lay out or alter townways for the use of the towns, and private ways for the use of one or more of the inhabitants thereof, or may order special repairs to be made upon such ways. But if they unreasonably refuse or neglect to do so when requested in writing by one or more of the inhabitants, the county commissioners, on petition of the persons aggrieved, presented at a regular meeting within one year, may cause such way to be laid out or altered, charging all expenses to the town, or partly to the town and partly to the individuals who are interested, as seems just. If the town way or private way be not made and completed in the manner prescribed within six months from the time the commissioners give their decision, the commissioners may themselves cause the work to be done and recover the cost from the town. When a town-way has been laid out or altered by the county commissioners it shall not within two years thereafter be discontinued or altered by the town, and a way discontinued by the commissioners shall not be laid out again by the town within two years. The commissioners may award damages for land or other property taken in all cases in which they have established or altered a highway, and if the owners are not satisfied with the amount, they may have the damages assessed by a jury summoned by the sheriff.

Another statute provides that highways, townways, streets, causeways, and bridges shall be kept in repair at the expense of the town, city, or place in which they are situated when other provision is not made therefor. But when two or more towns are required by law to maintain a bridge or keep it in repair, and they differ as to the mode or time of doing the same, the county commissioners having jurisdiction in either of the towns may, on application, and after a hearing of all interested, pass such order concerning the maintenance and repairs, as in their opinion the public good requires, and such order shall be final and may be enforced by the commissioners.

The statute relating to the government of towns (townships) provides that if a town chooses neither selectmen nor assessors, (or if the persons chosen do not accept the trust, or having accepted it do not perform the duties,) the county commissioners may appoint three or more suitable persons within the county to be assessors of taxes for such town, and may impose a penalty upon the town.

The Act relating to assessment provides that "if the assessors refuse to make abatement to a person, he may make complaint to the county commissioners, and if, upon

hearing, it appears that the complainant is over-rated, the commissioners shall make such abatement as they deem reasonable.

Any town, city, person or corporation owning low lands, lakes, swamps, quarries, or mines, which cannot be approached, drained, worked or used without crossing the lands of others or a public highway, may be authorized to establish roads, ditches, drains, tunnels and railways to such places if the commissioners, after hearing all parties interested, determine that such improvement is necessary. Any party feeling aggrieved may appeal.

The General Railway Act provides that "no railway corporation shall take, by purchase or otherwise, or enter upon or use, except for making surveys, any land or other property for the construction of its road, or any branch thereof, until the county commissioners . . . have determined the manner in which the railroad shall cross the highways and other ways within such county, nor until it has obtained from the board a written statement that public necessity requires the crossing at the same level." The commissioners may, on complaint of an owner of land through which a road passes, change its location so as to lessen the damage done. When two or more railroads whose tracks cross wish to separate the grades, the consent of the commissioners must be obtained. The commissioners may permit a railroad company to raise or lower a highway. The commissioners settle disputes between railway companies and owners of lands which would be divided by a proposed line of road, or a part of which would be shut off from a public highway. The commissioners may order railway companies to erect and maintain proper signboards wherever a railroad crosses a highway.

If the board of health of any city or town neglect or refuse to make the proper order for abating a nuisance, any person aggrieved may appeal to the commissioners.

When any person has suffered damages by reason of the construction of an aqueduct, the commissioners may assess the damages and issue warrants of distress to compel payment.

If gates, rails, bars, or fences have been erected on any highway, unless it be for necessary repairs or for the protection of health, the commissioners may order them to be removed.

The commissioners can authorize the employment of additional clerks of the courts, and determine what their remuneration shall be. They supervise the awards of damages for the killing of sheep by dogs, and order payment for such amount as they think just. They assess damages done by the coast survey. They may lease "great ponds" for the cultivation of useful fishes, fix the limits of such ponds, determining what arms, coves or bays shall be considered part of them, and may themselves manage any not exceeding six in number that have not been leased. No reservoir or mill dam shall be constructed until the plans have been approved of by the commissioners, and when it has been represented that there is reason to fear that a dam may break and cause destruction or injury, the commissioners, having examined it, may, if they think proper, order, on advice of an engineer, such alterations or repairs as they think are required to make the structure permanent and secure.

Other statutes provide that the commissioners shall manage the house of correction, and that they may contract for work to be done in the house with any person disposed to supply materials there to be wrought, or that they may let out any of the convicts to hire during the day time; that the commissioners shall be inspectors of prisons in their counties, and shall twice in each year visit and inspect all the prisons; that they may provide a house of reformation for juvenile offenders, and make regulations for their government, and for the appointment of officers; that they shall provide, as part of the house of correction, a receptacle for insane persons not furiously mad; that they shall provide fireproof rooms and safes, for county records; that they shall provide for the keeping and preservation of county maps; that they may cause copies to be made of the records of the county; that they may take land for burial grounds and assess the damages; that they may license persons to keep ferries and may establish the fares and tolls, etc., etc.

The county commissioners may dispose of property belonging to the county, may renew the whole or part of the debts of the county, may negotiate loans in antici-

pation of the annual tax, and may contract new debts not exceeding, in any one year or for any one object, $30 for each 1,000 inhabitants of the county.

For work done at the instance of private parties and in their interest, the commissioners are entitled to special remuneration according to a scale provided in one of the statutes.

These county commissioners do not appear to have such power to make by-laws for the government of the county as our county councils have. Our system is preferable in this respect; but the duties of the commissioners defined by statute are very extensive and important.

Audit.

All whom we were able to consult agreed that an efficient audit is absolutely necessary. In the great majority of the municipalities, in nearly all of them, as far as we could learn, the audit as at present conducted, is a mere sham, and serves much more to cover up irregularities than to expose and correct them. It is said, and we believe with truth, that the cases of fraud are few, but this is due to the honesty of the officials and not in any degree to the audit, which in many cases amounts to nothing more than a hurried comparison of the entries submitted by the official with what are produced as vouchers. What is now called an audit is really no check on collector, treasurer, or any one else who handles the public money. The inefficiency and worse than uselessness of the present system of audit is shown by the reports of the commissioners appointed under the Municipal Act at various times to make enquiry in particular cases. The report of A. H. Dymond, Esq., shows that in the town of Cornwall a treasurer was appointed without salary on the distinct understanding that the use of the money of the town which came into his hands should be the remuneration for his services. He generally had a considerable amount at his disposal, and the mayor borrowed freely and largely from him. The town sometimes paid interest on loans obtained from the bank, while large sums belonging to it were held by members of the council. The whole business of the town was carried on in the most irregular manner, and the audit was not the slightest check on the most improper transactions. One of the auditors for 1876 said at the enquiry "I never read the Act relating to an auditor's duties." An auditor of 1877 said, "I never referred to the Act of Parliament specifying the duties of auditors." Mr. Copeland, another auditor, said, "We believed we made a thorough examination of the affairs of the corporation. . . We did not examine the treasurer's cash balances. We saw no bank pass book. We knew by the ledger that there was an account between the corporation and the bank for loans. We knew of no account between the treasurer and the bank (although the treasurer had such an account). We would not be aware, from our examination, if the treasurer was strict in his balances. . . . We did not visit the bank to ascertain if the treasurer's account of loans was correct. We did not ascertain the authority on which the several loans had been raised. The accounts handed over to us show an apparent balance due to the treasurer of $2,616. We did not test the accuracy of this." If they had, Mr. Dymond says, they would have found it a fraud. The auditors of the previous year had allowed an account to go forth to the world from which the record of discounts for longer or shorter terms aggregating $1,600 was missing. Into the wherefore of a charge of $412 for interest on purchase of engine and hose account they made no enquiry. A payment of $1,500, on January 30th, to the High School treasurer, they accepted as right, although the order for it did not issue until March 2nd. Another auditor said, "We did not go to the bank," and the consequence was that a treasurer who was over $2,000 short in his cash was made to appear a creditor to the corporation to the amount of $2,616. Mr. Dymond says, "The audit itself was also, as usually performed, of a most perfunctory character. Even when the duty was discharged by men of the intelligence of Mr. John Copeland, it fell far short of being that guarantee to the public that they required. When Mr. Copeland undertook the audit of the accounts of 1878, matters had transpired that had a stimulating effect upon the auditors, and hence Mr. Dymond says, "a very careful effort was made to secure a true and faithful presentation of the affairs of the corporation in the auditor's report. How far the audit never-

theless fell short of what it should have been, the extracts from Mr. Copeland's evidence show."

Mr. Dymond's report describes the manner in which Mr. Allen contrived to pay off $1,480 which he owed the treasurer. He had served as mayor eight years without salary. The council were induced to vote him $200 a year, $1,600 in all. The Court of Queen's Bench decided that the vote was illegal. Mr. Allen had arranged with the treasurer, who on Allen's order took credit for the $1,600. The matter remained in that shape until the law having been changed, the amount was again voted by the council.

An enquiry made by Mr. Dymond into the affairs of the township of Houghton, exposed yet greater irregularities. In the charges preferred it was alleged that one reeve held office there for twelve years and managed, or mismanaged, pretty much as he pleased. In 1868 the treasurer became defaulter to the amount of at least $416 and this sum was lost, because the sureties proved to be worthless. His successor was also appointed clerk, and continued to hold both offices until December, 1878, when it was found that one of his sureties had sold his property and left the place, and that the treasurer had not been required to find another. The dwelling of this treasurer was burned on October 14th, 1878, and in it over $2,000 belonging to the municipality. The courts decided that the loss must be borne by the township, because the treasurer held the money in that way with the knowledge or approval of the council. Indeed, $1,250 of it was improperly drawn from the bank in an adjoining town a few days before, at the instance of the reeve. The council, some time before, resolved to expend $4,250 received under the settlement of the Municipal Loan Fund in opening roads and improving those already opened. The reeve was appointed a commissioner to certify to the Provincial Treasurer when the work was done, and "he did certify that the works were completed when they were not nearly completed." Mr. Dymond made a careful enquiry and ascertained that these statements were well founded, and that there were many gross irregularities in the management of the township's share of the Clergy Reserves Funds and other matters. Mr. Dymond reported that "by the mismanagement, imprudence and negligence of various parties, a sum of money approximating to $2,000, and including $1,250 of the surplus fund, has been totally lost to the township," and that "by the illegal acts, mismanagement, improvidence and neglect of duty of various parties, the township has lost of the Clergy Reserves funds, principal and interest, not less than $2,500." Mr. Dymond's findings in this case are twenty in all, and every one condemnatory of misconduct or negligence on the part of the reeve, the council, or the officials. He also reports that so far as the manner of keeping the books has allowed, there has been an annual audit of the accounts for several years past. . . When the auditors entered on their duties in January, 1878, they found no treasurer and had to audit—not books—but such memoranda and vouchers as Mr. Chamberlain (the reeve) and Mr. Pierce presented to them. When the clerk had the abstract ready for publication the reeve took the matter out of his hands, and made the additions his own way. The statement so made up was published and a correct statement, sent to the printer by the clerk, was suppressed.

Mr. W. F. Munro's examination of the accounts of the county of Bruce in 1887 shows that for years they were systematically falsified, and that a sum of $19,000 charged as having been paid out of the sinking fund for the redemption of debentures, had probably been embezzled. The books were kept in such a way as to render the discovery of the fraud difficult, and on the 31st of December, 1886, "there was to the credit of the treasurer at the bank a balance greater than what the cash book called for." This, Mr. Munro says, may be partly explained by the treasurer's "depositing several sums, not county funds, afterwards withdrawn, but chiefly by his issuing and charging at the end of the year a number of cheques which were not presented at the bank until after the beginning of the present year," 1887. Of a $250,000 issue of debentures the greater part were taken up, but matters were so managed by the treasurer that Mr. Munro found it difficult to ascertain whether the amount outstanding was $63,000 or $83,000. The auditing in this case was evidently insufficient to afford protection to the ratepayers.

We hear of misappropriation of the sinking funds in some cases. In one case at least it seems certain that the council used for other purposes the money collected to form a sinking fund. The sinking fund system of providing for the payment of funded debts

has been found to cause inconvenience and loss in many cases, but while the law requires that a sinking fund shall be provided, the taxes levied and collected for that purpose should not be diverted to any other, and when this is done surreptitiously, the wrong is greater. The audit was no check on improper expenditure in this case. In other cases, it is said, collectors manage to keep large amounts for their own use by contriving to obtain possession of the roll for one year before they make return of the roll of the year previous. They are thus enabled to collect enough to cover the deficit on the previous year's transactions before they return the old roll.

We hear from many quarters of irregularities and of suspicions of defalcations. The suspicions may in most cases, or in all, be as unfounded as in the case which Mr. Joseph Blakeley was appointed some time ago to investigate. He found that the suspected treasurer kept his accounts very carelessly, and that no entry was made anywhere of a large number of payments made by him. But an examination of his vouchers showed that he had actually paid more for the municipality than he had received. Even such a mode of managing municipal affairs, however, is exceedingly objectionable. A system so excellent in other respects as ours should ensure as far as possible the proper keeping of municipal accounts.

The necessity for a proper audit becomes greater every year. According to the statement of the Bureau of Industries, the total amount raised by municipal taxation in 1873 was, for general purposes, $3,453,647, and for school purposes, $2,152,132. In 1885 the amount raised by taxation was, for general purposes, $5,448,410, and for schools $2,-884,860. Of this large sum of nearly eight and a half millions the cities, Toronto, Hamilton, Ottawa, Kingston, London, Guelph, St. Catharines, St. Thomas, and Stratford raised less than one-fourth. Besides the amount raised by taxation the municipalities and school boards control the expenditure of what the Government pays to them for administration of justice, which, in 1885, was $137,002, and for school purposes, which, in that year, was $350,588. The expenditure of the large sums raised as loans also requires supervision. When all these things are taken into consideration, it will be seen that the importance of a proper audit can scarcely be over estimated.

The system under which the accounts of all public bodies in England and Wales, except only the councils of incorporated cities and boroughs, are now audited, seems to give general satisfaction. The Auditors of the local Government Board audited in 1886-7 the accounts of 736 urban sanitary authorities and their officers, and of forty-one other sanitary boards; of 309 highway boards and their officers; of 700 waywardens; of the surveyors of highways and highway boards for 6,700 highway parishes; and of 2,203 school boards, besides the accounts of joint hospital, water and drainage boards, commissioners for libraries, and all the boards of guardians of the poor. That the audit was thorough is shown by the fact that disallowances and surcharges to the number of five or six thousand were made. In Ireland, as we have elsewhere stated, the accounts of all public bodies (except those of the councils of four incorporated cities) have been audited in a similar manner for some years.

The system of audit in the counties of Massachusetts appears to be very thorough. The townships elect their auditors, but the law relating to the government of counties provides that the treasurer, who has been elected by the ratepayers, shall at the close of every year render his account to the county commissioners and shall account with them for all money received and paid by him on behalf of the county, and when the account is approved and allowed, it shall be delivered by him to the clerk of the commissioners. It is further provided that the county commissioners shall examine and allow the annual accounts of the county treasurer, and shall allow and settle all accounts of the receipts and expenditures of the county.

The Act further provides that the county treasurer and county commissioners at the close of each year shall publish in one or more newspapers an account of the receipts and expenditures of the county, arranged under distinct heads, and a specific statement of the debts of the county, and the purposes for which they were contracted, and the time when they become due.

They also, at the close of the year, and after the accounts have been certified by the Board of Examiners, make a particular statement of the receipts and expenditures of the

county, except the costs of criminal prosecutions and expenses of courts, of which, because these are otherwise especially audited, they may make a general statement; this statement they cause to be published in a form suitable for distribution, and they cause a number equal to one for every 300 inhabitants to be sent to the clerk of each city and town in the county.

The board of examiners or auditors for the county is composed of the judge and registrar of the probate court, and the clerk of the courts. If two of those offices are held by one person, the sheriff becomes a member of the board. Twice every year—in June and December—and oftener if in their judgment circumstances require it, this board make a full and thorough inspection of all matters relating to the county finances, comparing the accounts and vouchers of the treasurer with the record of the commissioners, and if they find them correct, so certifying. They also examine the accounts of the county commissioners for services rendered in the discharge of their duties, and if it appear that such accounts ought to be allowed they "make a certificate thereof upon the same."

But this is not all. The law further enacts that "The county commissioners, special commissioners, district attorneys, sheriffs, gaolers, deputy-gaolers, and masters of houses of correction, treasurers, clerks of court, and bail commissioners, are required to keep an accurate account, and on or before October 31st, to make return under oath to the commissioners of savings banks (who are state officials) of all sums of money which have in any way been charged or received by them or to their use by reason or on account of their said offices or in their official capacity, and also of all expenditures made or incurred by them by reason or on account of the same for the year ending with the thirtieth day of September next preceding. The commissioners of savings shall establish the same and compile the material parts thereof in tabular form, and on or before the fifteenth day of January in each year report the same to the General Court."

This means, of course, that the legislature may in every case order further examination of the accounts. But besides all this, the commissioners of savings banks, who are in fact a state board of audit, are empowered and required by law to inspect the books and accounts of the county treasurer at least once a year without previous notice to the treasurer, and examine all original vouchers. They are also required to visit or cause to be visited once a year without previous notice all other county offices, and to examine their books and accounts. The audit provided for in all these cases seems to be as thorough as an annual audit can be. The auditors ascertain also whether the county commissioners have caused indexes of the instruments recorded in the registry of deeds during the year to be made as the law requires, and copies to be made of such records of proprietors, town proprietaries, cities, towns, and counties as in their judgment ought to be preserved and perpetuated. They report to the attorney-general any failure on the part of the county commissioners to carry out the law in these respects.

The county treasurer accounts directly to the state government for certain moneys.

In the month of November the county treasurer notifies all officers who are required to pay over to him any fines, costs, forfeitures, fees or moneys which they receive to make the return required of them by law.

The county treasurer makes return, under oath in the month of January, to the auditor of the commonwealth of all fines, forfeitures, costs, fees, and moneys received by him in criminal matters during the preceding year, and "from whom received," and also the name of each magistrate or officer who has failed to make account, and pay over to him as required by law.

If neither the British system nor that of Massachusetts seems adapted to the present circumstances of this Province, a system may be devised which without touching upon any of the rights of the municipalities, would secure a thorough audit. A proper audit of the accounts of all the municipalities of a county, including the county council itself, would fully employ the time of one competent accountant for some months, and the amounts now paid by townships, villages, towns and the county for a mere pretence of audit would in most cases afford satisfactory remuneration for the services of such an officer. The plan proposed is that the county council should appoint one man having a certificate of competency or diploma from some association or person to be named in the Act, or by the Lieut-Governor in Council, or on conditio

of his immediately obtaining such diploma or certificate, auditor for all the municipalities of the county ; that the person so appointed hold office for three or five years, but that he may be removed at any time for cause stated by two-thirds of the council.

A competent accountant should be appointed to superintend the audit of the accounts of all the municipalities of the Province. His office should be at Toronto, and it should be his duty to prepare account books with proper headings, and to see that the accounts are properly kept on a uniform system all over the province ; also to prepare blank forms for all returns, which the law requires to be made, or which he may find desirable. Treasurers and all other county officers should be required to procure such books and blanks, and to keep their accounts and make their returns according to the instructions sent from the central office. The auditors should strictly follow the superintendent's instructions as to the manner in which the audit should be made. It should be the duty of the clerk of the county municipality, or of the auditor to send certified copies or duplicates of all accounts when audited, and of all other papers that may be required, to the central office, there to be again examined carefully.

It should be the duty of the county clerk, county auditor, and all other municipal officials, to furnish promptly and fully all information and explanations for which the superintendent may call. And it should be the duty of the superintendent, whenever he found reason to suspect that there was any attempt to cover up any fraud or irregularity, to visit the municipality where he thought such attempts were made, and to make a thorough investigation on the spot. For this purpose he should be empowered to summon witnesses and examine them under oath, and to compel any officer of the county or any other municipality to produce all such books, papers, etc., as he may choose to examine.

Nearly all the gentlemen experienced in municipal affairs whom we had an opportunity of consulting, think that under such a system as this, properly carried out, there would be reasonable assurance of a satisfactory audit. And it would be inexpensive. When the ratepayers in any municipality believed that through the incompetence of the county auditor or with his connivance the funds of the municipality were misappropriated or wastefully or fraudulently expended, they should have the right, as now, to demand an enquiry. The superintendent in such case would conduct the enquiry, unless his own conduct was impugned, or the Lieut.-Governor in Council preferred to appoint a special commissioner.

Mr. Munro, who audited the county of Bruce accounts after the treasurer's defalcation, thinks that if the treasurer of every county were required to prepare a statement of receipts and payments once a week by filling up such a blank as he submitted, and to put it up in his office where any ratepayer who chose could see it at all reasonable hours, much would be done to prevent the embezzlement or improper use of the public money.

Assessment.

It seems to be as difficult to get a fair assessment in the townships as in the cities and towns. It would matter little whether property was valued for assessment purposes at one-quarter, one-half, or three-fourths of the real market value, or at the full value, if only all in the township, the village, and town were valued alike, and the ratio of taxation were fair in all cases. But as mistakes and blunders will be made, and as feelings personal or political will influence even assessors who believe themselves incapable of wilful wrong doing, there should be some mode of redress when injustice is done, and redress is more easily obtained where all property is assessed at nearly its full value than when all, or nearly all, is assessed much below its value. The tendency everywhere is to assess much under the value. According to the statement in the report of the Bureau of Industries the value of all the real property in the Province in 1885 was $615,937,773, and of all the personal property only $60,798,203. There is no room to doubt that the real property is greatly undervalued ; the valuation of the personal property is relatively much lower and yet both are much higher in proportion to the actual value than they were a few years ago. The law directs that "real and personal property shall be estimated at their actual cash value as they would be appraised in payment of a just debt from a

solvent debtor." No attempt was made to assess upon the principle thus laid down until 1875, when, as the report of the Bureau says, "real property was put up $113,300,000, and personal property $6,200,000 above the assessment of the previous year." In the following year there was a further increase of $47,000,000 in the aggregate; still the assessed is in very many cases far below the real value of property. A cause of undervaluation is in many cases the desire of one or more townships to evade by that means the payment of their full share of the county expenditures. For many years the chief work of the county councils was the equalization of the assessments, as it was called, and in some cases this is still a work of difficulty. Some gentlemen, experienced in municipal affairs, thought that the present system of equalization works fairly well, and that no serious injustice is done. Others insisted that it can not work well as few members of any county council are acquainted with all the lands of the county, and the representatives of each of the minor municipalities think it is their duty to do all they can to keep the taxation of their own constituents as low as possible.

The assessed values differ greatly in different counties, and not always as actual values differ. In 1885 the average assessed values of land per acre were, in Essex, $17.27; in Kent, $30.37; in Elgin, $28.70; in Norfolk, $21.82; in Haldimand, $25.79; in Welland, $29.35; in Lambton, $22.25; in Huron, $32.71; in Bruce, $20.98; in Grey, $14.58; in Simcoe, $11.11; in Middlesex, $29.70; in Oxford, $40.53; in Brant, $42.55; in Perth, $34.42; in Wellington, $22.24; in Waterloo, $27.83; in Dufferin, $12.23; in Lincoln, $23.65; in Wentworth, $39.83; in Halton, $32.75; in Peel, $31.40; in York, $43.43; in Ontario, $31.78; in Durham and Northumberland, $26.61; in Prince Edward, $25.10; in Lennox and Addington, $16.22; in Frontenac, $6.62; in Leeds and Grenville, $13.26; in Dundas, Stormont and Glengarry, $15.66; in Prescott and Russell, $7.61; in Carleton, $13.60; in Renfrew, $2.62; in Lanark, $6.96; in Victoria, $10.56; in Peterborough, $13.48; in Haliburton, $1.05; and in Hastings, $9.70. There is probably no case in which the assessed value as thus stated exceeds from 60 to 65 per cent. of the real value, and in many cases the assessed value is ridiculously low.

Burroughs, an American writer, in his work on taxation, says, "The question how land is to be valued, or upon what basis, has given rise to much discussion in legislative bodies. The difficulty is generally to obtain a uniform valuation throughout the State, so that each part of the State may bear its appropriate part of the burden. This difficulty arises whatever may be the standard of valuation, and an attempt has been made to obviate it by boards of equalization. In Michigan and California the standard is the cash value; in New York it is as "a sum which the majority of the assessors decide to be the true value whereof, and at which they would appraise the same in payment of a just debt from a solvent debtor." The expression in most of the States is either "cash value," "fair cash value," "at its true value in money," or "in ready money." In Iowa it is at its true cash value, having regard to its quality, location, natural advantages, general improvements in its vicinity, and all other elements of value." In Arkansas water privileges are especially designated as an element of value; and in Illinois the value of growing crops is expressly excepted as an element of value. . . The price which land brought at a recent public sale will always be regarded as *prima facie* evidence of its real value. The owner is allowed, in many States, to make affidavit as to the value of his land, and in New York prior to 1851 this affidavit was conclusive as to its value; but now a more reasonable system prevails, and it is only one of the elements to be considered by the assessors in forming their opinion."

The laws, however, are not strictly carried out in any of the States, and in many cases the assessed values are little, if at all, more than one-half the real values.

The difficulties which are experienced in Ontario in obtaining a satisfactory assessment have been experienced everywhere and at all times since the system of assessment was first introduced. An Act 15-16, Vic. c. 81, consolidated and amended twelve Acts passed during the reigns of George the Second, George the Third, George the Fourth and William the Fourth, and in the early years of the reign of Queen Victoria in relation to the assessment and collection of the county rates in England and Wales. The Quarter Sessions were by this empowered to appoint, as often as they may deem it necessary, a special committee not exceeding eleven in number nor less than five, "for the purpose of

preparing a basis or standard for fair and equal county rates." Ample powers were given to this committee. They were empowered to call on all overseers of the poor, constables, assessors, collectors of rates and others to furnish such information as they possessed, and to direct, when they thought fit, that the whole or any part of any parish, township or place within the county should be valued, and to appoint persons to make such valuation. Provision was made for hearing and disposing of objections to this valuation coming from individuals, parishes or places. The basis of taxation, this Act says, should be "founded and prepared rateably and equally, according to the full and fair annual value of the property, messuages, lands, tenements, etc." The Act provides complete machinery for fixing the basis, yet the assessment is not quite satisfactory to all parties. A special valuation of London is made every five years. The Ontario municipal law authorises county councils to have a quinquennial valuation of all the property in the counties made. We have not been able to ascertain the extent to which this power is used, but in the county of Ontario, as we are informed, a general quinquennial valuation is now made the basis of assessment, and it is found to give much more satisfaction than the system of township assessment by township assessors. In Ireland a general valuation has more than once been made by government officials under authority of Acts of Parliament, and it was generally considered fair, time and circumstances being taken into account. Some of those whom we consulted insist that the only means by which a fair valuation can be procured in this Province is the appointment of competent valuators by the Provincial Government. That may seem to be an interference with the rights of the municipalities to manage their own affairs, and it should not be necessary, although it may serve a good purpose if one or more townships were given the right to call upon the Provincial Government to cause a valuation of their whole county to be made.

The constitution of the State of Massachusetts, Article IV, provides, "And while the public charges of government, or any part thereof, shall be assessed on polls and estates in the manner that has hitherto been practised, in order that such assessment may be made with equality, there shall be a valuation of estates within the Commonwealth taken anew once in every ten years at least, and as much oftener as the General Court shall order."

This State valuation, the county commissioners are required by law to make the basis upon which to apportion county taxes amongst the townships.

Miscellaneous.

The subjects suggested for our consideration by those who take an active interest in municipal affairs, are numerous, and many of them are no doubt important. Besides those to which we have been able to give attention, we may name "the abolition of market fees; the cost of prosecutions and of the maintenance of prisoners and its distribution; a cheap and simple means for the closing and diverting of highways that will afford ample protection to the public; a more exact definition of the purposes for which councils may expend money, and a means of surcharging and recovering from members of a council money wrongfully spent; the necessity for imposing effectual checks on the expenditures of police boards and school boards; the advantages and disadvantages of the sinking fund system; the desirability of making the payment of loans hereafter contracted on the equal annual payment system, compulsory; a quicker and cheaper mode of contesting disputed elections; the reduction of the maximum rate of taxation where the local improvement system is adopted; the possibility and desirability of providing against level railway crossings in cities and towns, and of making and enforcing such regulations of railway movements as may be found necessary; the best means of encouraging and enabling towns and villages to provide proper protection against fire, and a supply of pure water; the sufficiency of the powers of expropriation which municipalities now possess; the possibility of improving the means of promoting the drainage of agricultural lands; the taxation of non-resident lands with a view to the fairer distribution of the burdens of taxation; the terms on which telegraph, telephone, gas and other

companies should be permitted to use streets, if this be within the competency of the legislature; the development of what is known as the bureau system in some counties in which magistrates and constables are accused of encouraging litigation.

A gentleman of much experience states that in some instances the public interests suffer because Provincial officers whose duties never place them in official relation with the municipalities, are disqualified by law for election as members of any municipal council.

Difficulties, we are informed, frequently arise between the councils of towns separate from counties and the councils of the counties in which such towns are situate, and that a means of preventing them could be found.

We have been asked to recommend that the local improvement system, as now applicable to cities and towns, may be made applicable to those townships or parts of one or more townships in which good roads are of prime necessity, and where from the nature of the soil, such roads would cost more than the districts could raise in the ordinary way. Wherever it may be found expedient, it was urged, these roads may be constructed along the lines of arterial drains with advantage to both, and a saving of expense. Whether the farms back of those fronting on such roads, or the cities or towns to which they may lead, should contribute any portion of the cost, ought, it was urged, be settled by decision of the county council or by arbitration.

We are told that some rural municipalities would be relieved from much trouble and worry and the payment of exorbitant law charges if a form of by-law authorizing the issue of debentures for general purposes similar to the form of by-law authorizing drainage debentures now given in the Act, were made the statutory form, as that is.

It has been suggested that the drainage system, although essentially good, and although it has been of vast benefit to the country, has become complicated and cumbersome by reason of the many amendments made to it, and that it should be simplified.

A gentleman who has had much experience as a member of one of the municipalities of Essex states, that the law as it now stands leads to much litigation in that county, and that in one township the cost of litigation amounted to nearly $2,500 within two years. He thinks that much of this litigation would be prevented if in all cases in which two or more municipalities of the same county were interested, the persons desirous of having any drainage works undertaken were required to make application, not as now to one of the minor municipalities, but to the county council. In that way, he thinks, arbitration between the townships would be rendered unnecessary. Arbitration seems a ready, easy, inexpensive, and in every way satisfactory mode of settling such differences as may arise in carrying out such works. But in Essex, he says, it has proved troublesome and very expensive. He would have all appeals from the decisions of the county council made directly to the county judge. He argued also that the petition asking that such works be undertaken should be signed by a majority of all directly interested.

The provisions of Section 603 R.S. are not sufficient, he says, to prevent the evils of which he complains. He contends also that whenever appeal is made from the decisions of the county council the by-law authorizing the work should not have effect until the appeal is disposed of. His reason for this seemed to be that the work could be carried on more satisfactorily after all disputes had been settled. He insisted strongly that an amendment of the Act in this respect made recently has been injurious in its effects. Wherever arbitration is necessary the arbitrators should be required to meet on the ground, and provision should be made which would prevent the costs exceeding $20. This, he thought, quite practicable. For carrying out such works where two or more counties are interested, the present system is said to be unsatisfactory.

The Municipal Law of the Province of Quebec provides that "in every county there shall be three delegates to represent the interests of the county at every meeting of delegates held under the provisions of the Act, and to exercise and perform in conjunction with delegates sent from another or several other counties, as the case may be, the powers and duties hereinafter mentioned." The warden shall be *ex officio*, one of the said delegates. "The two other delegates shall be such two members of the county council as shall be appointed for that purpose at the first session held after the general election of

councillors, or at a special session held within fifteen days from the first day of such general session." The council of the county in which the work to be done is originally proposed appoint a special superintendent to examine, and report, and when his report has been filed the warden of that county gives special notice to the delegates of all the counties interested of the time when, and the place where they shall meet. When they meet they form a Board and all disputed questions are decided by a majority of the votes of the delegates present.

It has been suggested that townships should not have power to borrow money from the banks for local improvements, and that the powers of county councils and township councils should be better defined, but the person making this suggestion does not explain in what respect he thinks there is room for doubt as to the extent of those powers in either case, or where they clash.

More effective means, it is said, should be provided to prevent the treasurer of a municipality from paying an order drawn on a fund that is exhausted, and the personal demand made by tax collectors, which now causes much useless expense, should be dispensed with.

A gentleman, writing from London, asks that "the question of allowing the formation of villages and towns adjoining an existing city, town or village," be considered, and that some more effective machinery be provided to avoid the dangers and annoyance caused by the existence of such rival corporations. He also calls attention to the fact that "although the Municipal Act apparently provides ample powers to extend limits under the proclamation of the Lieut-Governor, still, as almost all lands to be annexed are under share of a county debt, and all cities are under special debt Acts preventing any increase of liabilities, it is impossible to annex without adding share of county debt, and so a special Act is necessary for each addition." He suggests that the Municipal Act should be so amended that "an increase of liabilities in this way may be allowed by the proclamation notwithstanding any provisions to the contrary expressed in any special Act relating to either of the municipalities or their respective debts." London, he adds, furnishes a case in point.

It is suggested that the law should be so amended that "a proper setting aside of the sinking fund on debentnre debt "would be thoroughly enforced." Annual returns to the government, it is suggested, "would be some guide as to whether the requirements of the Acts were carried out and the department could be given some method of enforcing its due collection and preservation."

It has elsewhere been suggested that if the system of equal annual payments were adopted, as we are informed it has been generally adopted in English municipalities, the collection and investment of sinking funds would no longer give any trouble or afford opportunity for waste, misappropriation, or embezzlement.

We have endeavoured to obtain information on these and other points, but all that we have been able to gather is not sufficient to justify our reporting upon them positively or at any length. Nor have we been able to ascertain how such difficulties have been overcome or obviated elsewhere.

Amongst the persons familiar with the working of our municipal system, we found much difference of opinion on several of these questions. One whose opinion we would be inclined to regard as almost authoritative, thought that no enlargement of the powers of any of the municipalities is necessary. They do not, he said, use all the powers they now possess. Others were of a different opinion, and the number of bills introduced in the Legislature in which it is proposed that greater powers, or greater discretion in the use of their powers, be given to the municipalities, or that the Legislature do by direct enactment what essentially belongs to municipal government, seems to give weight to their opinion. Before making such a report as would be entitled to consideration it would be necessary to ascertain what the experience of the working of our system as it now is has been in various parts of the Province, and to what conclusions that experience has led the men who have taken the most active and intelligent interest in municipal affairs. We have found that in some districts amendments are desired in some sections of the law which in other districts appear to have worked satisfactorily. We have found also that matters which some regard as of the very first importance, others regard as of minor im-

portance or as requiring no especial consideration. All this is quite natural, because the circumstances and conditions in different districts vary widely, and each is inclined to attach importance only to that which immediately concerns itself. However, the true policy unquestionably is, taking advantage of the experience of every district, and paying due regard to the wants of each to modify the system as a whole, expanding it as the country grows, and cities and towns become populous, so that the council of every district, town and city could find in it all the powers, and all the aids and facilities, that legislation should give, and so that at all times all the responsibilities properly theirs should rest upon them instead of passing an Act to deal with every difficulty, real or imaginary, that may be brought under the notice of the Legislature. The great excellencies of our municipal system are its simplicity, its symmetery, and, looking to the past one may fairly add, its sufficiency. These have been marred by the passing of a number of special Acts. It is possible to destroy them by excessive legislation, and to make what is now simple, complex and scarcely intelligible, what is now symmetrical, a mass of contradictions and confusion. Progress may be necessary; real progress is always desirable, but we should take care that when we move it is to advance in the right direction, and without breaking our line. Our municipal system is now one of the best in the world; it will continue to be one of the best if from time to time we make those changes, and only those, which the most deliberate consideration shows to be necessary or desirable.

TOLL ROADS.

The want of a proper municipal system in Great Britain and Ireland, led to the construction of docks, sewers, streets, and other necessary works in cities and towns by trustees, acting under authority of special Acts of Parliament, and to the construction throughout the country of the great highways usually called turnpikes. For each of these highways there was a special Act of Parliament, and a special board of trustees were empowered to charge tolls and to raise money for the construction or improvement of the road on the credit of the tolls. The number of Acts of Parliament was enormous, and every year a short general Act was passed continuing all such Acts. The Acts in amendment of the special Acts were numerous. The counties and townships in England, the counties and parishes in Scotland (and in Ireland) the counties—or baronies, when the county authoritities so directed—supported all the other roads. The toll-gates were numerous; and the payment of tolls was everywhere found to be vexatious and in some cases even oppressive. It was found also that this mode of making and maintaining roads was very expensive. For a long time the trustees were virtually uncontrolled. Money was borrowed at high rates of interest, high prices were paid for all the work done, and the cost of collecting the tolls was considerable. Still the English dislike of change and the unpopularity of the "Quarter Sessions" which managed other thoroughfares caused the people to endure what they felt to be a grievance, and little change was made in the system until toll-gates so multiplied in Wales that the grievance became intolerable, and the Rebecca riots demonstrated that a change had become necessary. Even then Parliament proceeded slowly. The Act of 1844 created county boards for the management of all the roads in the counties of Wales, and gave to those boards power to remove toll-gates wherever it seemed expedient. The abolition of toll-gates soon after commenced in England, but it proceeded very slowly. Information was first obtained in the usual way as to the condition of all the turnpike trusts, and then the time for the abolition of tolls, or rather the time at which, in each case, the Act authorizing the management by trustees and the collection of tolls should expire, was determined according to the conditions of the trust, the amount of its indebtedness, etc. Care was taken that no bad debts should be incurred, and that the income of the roads should not be wasted. In several cases it was found necessary to extend the time of the currency of the special Acts. The schedules of the Acts of Parliament, in which the special Acts to expire at certain periods are described merely by their titles, occupy several pages of the statutes at large of those years. As the roads were dis-turnpiked the question arose as to

the manner in which they should thereafter be sustained. The counties undertook the maintenance and control in some cases. In others they succeeded in imposing the burdens upon the townships or parishes. These complained that the burden was too heavy, and several roads or parts of roads were not kept in proper repair. Several highway district boards, representing unions of parishes were then created, on which the occupiers of land were allowed some representation, although the resident justices who were all *ex-officio* members, largely outnumbered the elected way wardens. The county authorities—the Quarter Sessions—however, found it necessary to assist these boards in the maintenance of the old turnpikes to the extent of one-half the cost, and they in turn clamored for—and being then powerful in Parliament eventually obtained—assistance from the Government. The report of the Local Government Board for 1886-7 states that the number of turnpike trusts in England, (exclusive of the Isle of Wight) and North Wales, so late as December 31st, 1864, was 1047, the length of the roads comprised therein being 20,189 miles, and that on January 1st 1887, only fifteen of these trusts embracing in all 269 miles of road were in existence. Of these four would expire in 1887, four in 1888, one in 1889, one in 1890, and one—a bridge—in 1896. Two other trusts have not yet been finally dealt with. In South Wales several turnpikes were still in existence under the management of the county road boards, created by the Act of 1844, and the tolls collected on these roads amounted to £23,412. In England and Wales there were last year, besides the turnpike roads, 16,995 miles of what are called main roads, and 101,046 miles of ordinary highways, and the expenditures on them all, exclusive of loans, was £2,036,110. In Ireland and in Scotland, we believe, all the toll-gate roads were " dis-turnpiked" many years ago.

In the Maritime Provinces, toll-gates, as a means of raising money to pay for the construction and maintenance of roads or bridges were never in favour. A few years ago there was but one toll-gate in all New Brunswick. That was at a bridge near St. John, built by a private company. Public opinion has compelled the removal of that. The Government now owns the bridge, and there is no longer even one toll-gate in the province.

The construction of turnpike or toll-gate roads was much encouraged in the early days of Ontario, probably because good roads were much wanted, and neither the provincial government, nor the local authorities could raise money enough to do all that was necessary for opening up the country. A law was passed which authorized any persons who chose to constitute themselves a body corporate for the purpose of building a road anywhere. These persons were only required to file in a government office a statement, showing what they proposed to do, and they became immediately clothed with powers to take land, material, etc., paying for them by agreement or arbitration, and to charge what tolls they pleased within the limit defined by the Act, on the all traffic passing over the road when built. Probably many of those roads were at first of great benefit to the public. But the feeling that they are out of date, and that they have become a great obstacle to progress an annoyance, and in most cases even a nuisance has been general for some time. This feeling grows stronger every day, and the demand for the abolition of such toll-gates as still remain is almost universal.

At the last session of the Provincial Legislature, a committee was appointed to make enquiry and report upon this subject. They reported that, " the time has arrived for putting an end to the existence of toll-roads, and that legislation ought to be provided requiring the county council, upon the application of a reasonable proportion of the ratepayers or of a municipality interested, to pass a by-law for acquiring any toll-roads, and putting an end to the tolls thereon, and for referring to arbitration the question of the proportion in which the cost incurred ought to be borne by the ratepayers, local municipalities, and counties at large, respectively." The voluntary principle, would in all probability, work much too slowly in a case like this to satisfy public opinion. Some counties in which public opinion was healthy and strong bought up the toll-roads and abolished the tolls years ago. Others, which acquired the property in the roads still cling to the toll system, because they find that it enables them to exact from others than the ratepayers of the county or the district a part of the cost of maintaining their roads. In some counties the toll-roads having ceased to be profitable were abandoned by the owners, but in many the old system remains still in full operation, and in all probability

it will remain in operation for many years if it be left to the voluntary action of ratepayers and councils to put an end to it. With municipalities which have toll-roads under their control, the committee proposed that the legislature should act more peremptorily. They reported that municipalities should be required to abolish the tolls on toll-roads under their control within three years. The public, we believe, would be better satisfied if all tolls were abolished absolutely at a much earlier day, say on the first of January next, or even sooner, and at the same time provision were made for determining the amount of compensation to which private individuals, who own any of these roads are fairly entitled, and for determining also how the cost of purchase, and cost of maintenance should be distributed. Pending an agreement or an arbitration it may be provided that where toll-roads are owned by counties or townships they should be maintained by the present owners and that such roads as are now owned by companies should be maintained by the counties or the townships through which they run.

Where the parties fail to agree amongst themselves the claims and liabilities should be settled by arbitration. The value of the roads owned by companies could be determined without much difficulty. But in determining the value not only the net income for the past few years should be taken into account, but also the present conditior of the road, as income might, in some cases, have been increased by undue reductions of the expenditure on maintenance and repairs. It may be found more difficult to determine whether, in any cases the counties or the townships should bear the whole cost of purchase and afterwards of maintenance, or if the burdens should be divided between the counties and other municipalities within the limits of the county what portion each should bear. It is contended in some cases that the cities or towns to which they lead are more interested in the opening of these toll-roads than the counties or townships through which they run. As this may be true, means should be taken to determine what part, if any, of the cost of purchase, etc., should be borne by the cities or towns interested. It is manifest that if the parties fail to agree, all such questions can best be settled by arbitration, but it may be well if the legislature not only provided how the arbitrators should be chosen, but also laid down some rules for their guidance. It may be neccessary to provide that if any party refused to appoint an arbitrator after reasonable notice, the government should appoint an arbitrator to represent such party, or should appoint commissioners whose award or decision would be binding.

We have found it difficult to obtain all the information which it is desirable to have as to the number of toll roads still in existence, their length, original cost, gross and net income, etc. The committee of the legislature examined all the members of that body who were supposed to have any knowledge of the facts, but all the information they could gather was scan and unsatisfactory. In their report they recommended that "The government should, during the recess, insist upon the compliance by all road companies with the provisions of the law requiring returns to be made as now provided, and to enforce the penalties imposed by law for non-compliance." But so regardless of these provisions of the law had the proprietors of many of these roads become that, as we learned when we applied at the office of the Provincial Secretary for an abstract of these returns, only eighteen have been sent in since the committee made that report. We sent a circular to the clerk of every county municipality, asking him to let us know if there were any toll roads in the county, and if there were, to tell us, if he could, what the number was, by whom each was owned, and the name of the president or secretary of each; also to give us such further information as he could as to the length of each road, its cost, its gross and net income, etc. To some of these circulars we have received no answer. Such information as was given in the answers that were sent to us, and the information obtained by the legislative committee, we summarize, placing the names of the counties in alphabetical order for convenience of reference.

Brant.—Mr. Wood, M.P.P., stated to the legislative committee that there are about twenty-one miles of toll roads in North Brant in three sections owned by three different parties. Of one road, running from Brantford to Hamilton, about eight miles are in Brant county. This is owned by Mrs. Ramsay, and on it there are two tolls. A road from Brantford to Paris, six miles in length, with two tolls, is owned by David Patton.

A road running from Paris to the village of Ayr, about seven miles in length, is owned by Samuel Cochrane. It has two tolls. The road owned by Mrs. Ramsay extends to and beyond the village of Burford. Its length in this riding is from six to ten miles, and there are two tolls on that part of the road also.

We received no reply to our circular from the clerk of this municipality.

Bruce.—Mr. Dack, M.P.P., stated to the legislative committee that there never were any toll roads in this county, and that the roads are the best in the Province. They were built by the county which had the land improvement fund to draw upon and went into debt besides to the extent of $250,000.

The clerk of the county municipality makes a similar statement and adds that the roads when built by the county were "handed over to the municipalities for maintenance."

Carleton.—This county, as stated before the committee, has three toll roads, viz.: the Bytown and Nepean, eight miles in length with two gates; Bell's Corners and Richmond road, ten miles long with two gates, and Ottawa and North Gower road, six miles long with two gates. The Ottawa and Metcalfe road extends three miles into this county.

The returns made to the Provincial Secretary's office give the following statment of the assets, etc., of the three roads:

Name of Road.	Cost.	Capital Stock.	Tolls, etc. received during year.	Paid in dividends.	Paid for repairs during year.	Total amount expended in construction and repairs.
	$	$	$	$	$	$
Bytown and Nepean.....	25,633	22,000	5,390	660	2,245	25,633
Ottawa, Montreal and Russell.....	88,914	57,940	5,127	2,886	1,328	158,744
Ottawa and Gloucester..	86,350	63,880	8,335	4,471	2,877	189,352

These figures require explanation to be quite intelligible. In one case the original cost is said to be the same as the total amount expended, In the others all expenditures on repairs appear to have been added to the original cost to make up the "total amount expended." In no case do the amounts said to have been paid as dividends and expended in repairs equal the amount received as tolls, etc., during the year. In the case of the Bytown and Nepean road very nearly one-half the total receipts remains unaccounted for. The amount paid to toll-gate keepers is not stated as the statute requires.

Dufferin.—There never was a toll road in this county.

Dundas.—The clerk writes that there are two toll roads in this county. The Matilda gravel road, eleven miles long, is owned by the municipality of Matilda. It cost $12,000. The tolls amount to $1,000 a year and a like sum is expended in repairs. Public opinion is in favour of the maintenance of the toll gates on this road. The other is the Williamsburgh gravel road, owned by Messrs G. S. Whittaker and Isaiah Meekley. It is six miles in length and cost $6,000. The tolls amount to $1,400, the expenses of maintenance to $800 or $900, and the dividends to about $500. Public opinion is unfavourable to the maintenance of the tolls on this road. Neither of these roads made last year the return required by the statute, and no information respecting either of them was obtained by the legislative committee.

Durham.—The report of the legislative committee states that the toll roads were abolished in the west riding of this county many years ago. The legislative committee report that in Northumberland and Durham there are four toll roads. (See Northumberland.)

Elgin.—According to the statement made by Mr. Ingram, M.P.P., to the legislative committee, the London and Port Stanley road was constructed by the Government and afterwards sold to the county of Middlesex for $15,000. After the division of the county Elgin bought the fifteen miles of road in that county. The greater portion of this is in the east riding. The municipality has a toll gate on it and expects to pay off

the debentures in ten or twelve years. The portion of the road in the west riding was leased for ninety-nine years and Mr. Hepburn, who now owns it, asked $20,000 for it when the county council proposed to buy it, although it was then in bad repair. There are two toll gates on this road.

Neither of these roads made last year the return required by the statute.

The clerk states, in reply to our circular, that there are two tolls roads in this county. The St. Thomas and Aylmer gravel road, four miles in length, owned by the township of Yarmouth, and the London and Port Stanley, about eighteen miles, owned by the county of Elgin. "The St. Thomas and Aylmer road was purchased from the counties by the townships four years ago at a cost of $9,959.08 and debentures to run for ten years were issued. Toll will be collected until a sufficient sum is realised to pay off debentures and all repairs to road until (when) gates are (will be) removed. The net revenue during the past four years, $6,246.18. If receipts average the same during the next four years the gates will be removed about December, 1891."

The London and Port Stanley road can be purchased for about $16,000 from the lessees. At present the road pays about ten per cent. on that amount. The principal objection to the township's assuming this road is the large bridge near St. Thomas. Public opinion is strongly in favour of dealing with this road as the St. Thomas and Aylmer road was dealt with, but as yet no definite action has been taken.

Essex.—Mr. Balfour stated to the legislative committee that there are four toll roads in Essex, viz., the Amherstburg and Maldon, seven miles long, with two toll gates; the Sandwich and Windsor, two miles long, with one gate; the Windsor and Talbot, eleven miles, with three gates, and an extension of the road into Windsor, four miles, with two gates. The owners value those roads at $58,000. The county council proposed to purchase them, and valued them at $31,000. All the owners, except the owner of the two-mile road between Sandwich and Windsor, were willing to accept the price offered. He wanted an amount equal to the nominal price of the watered stock, and the whole scheme fell through.

The Talbot and Windsor, eleven miles, is the only one of these roads that has made the statutory return. According to that,

The cost of the road was	$16,000 00
The total amount expended	26,013 00
Capital stock	16,000 00
Amount of tolls expended	9,176 25
Amount received during the year from tolls, etc	642 70
Dividends paid	418 70
Paid for repairs	42 00

It is also stated in the return that the capital stock paid in was $12,000, and that $4,000 was borrowed from Windsor. This debt was discharged afterwards by making the road within Windsor free of toll. The clerk of this municipality sent no reply to our circular.

Frontenac.—According to the report of the legislative committee this county has a great number of toll roads. The Kingston and Gananoque, fifteen miles long, four gates, bought, by township of Pittsburg. The Centre Pittsburg, five miles long, one gate; bought by same township. The Phillipsville, twenty-four miles long, with five gates; bought by the same township. The Perth road running north from Kingston, twenty miles long, with three gates, owned by a joint stock company. The Stormington road, sixteen miles long, with two gates, owned by a joint stock company. The Cataraqui and Sydenham road, length not stated, three gates, owned by a joint stock company. The Portland road, length not stated, three gates, owned by a joint stock company. The York road from Kingston to Napanee, three gates, sold by the county to keep the road in repair. The Bath road, seven miles long, two gates, owned by a joint stock company. The Front road, five miles long, was made free by the county and the city of Kingston. Not one of the nine toll roads in Frontenac made the statutory return last year. No reply to our circular was received.

Glengarry.—This county never had toll roads.

Grey.—The clerk reports that there are no toll roads in this county. The municipalities make and maintain the roads.

Haldimand.—The clerk writes, "There are not any such roads in this county."

Haliburton.—The clerk writes, "The roads in this county have not yet reached a condition in which tolls might be collected, and it is sincerely hoped that the antiquated system will never have a foothold here."

Halton.—The clerk states that there are no toll roads in this county.

Hastings.—Mr. Woods, M.P.P., stated to the legislative committee that this county had at one time 136 miles of toll roads, 88 built by the county and 48 by companies. The county abolished the tolls on its own roads, bought out the companies by agreement, paying them about $2,000 per mile, and abolished the tolls on their roads also. The county applied what it received from the municipal loan fund to paying off the balance of the debt, and now it has 300 miles of gravel road free to all, and owes nothing. If the roads in other counties are to be freed from tolls, the people of Hastings think that the counties should pay whatever may be necessary, as Hastings has done.

The clerk writes that in 1860 the county council passed a by-law for the purchase of all the proprietary roads in the county, and in 1861 the purchase was completed at a cost of $57,800. Since that time the roads have been maintained from the general fund of the county. The cost of maintaining the 330 miles of gravelled roads in 1887 was according to the estimates $13,000. The estimate for repairs, etc., of 324 bridges was $10,000, and for repairs of roads not gravelled $5,500.

Huron.—The report of the legislative committee states that in 1859 this county built 101 miles of road, having 19 toll gates, and that in 1857 a company built 26 miles with 12 gates. In 1872 the county abolished the tolls on its own roads, and in 1873 leased the company's roads. In December, 1873, the county imposed upon the municipalities the cost of maintaining these leased roads, and about the same time abolished the tolls on them. The report leaves the impression that the county still pays a rent to the company. It states that the county has expended $500,000 in building over 200 miles of gravel road.

The clerk, in his reply to our circular, states that there are now no toll roads in the county. There were 23 toll gates in the county, but they were abolished in 1873, to the great satisfaction of the people of the county. The roads (all in the county) cost nearly half a million dollars. The county maintains all bridges of twenty feet space or upwards on these roads, and the roads themselves are maintained by the statute labour. The roads appear to be in as good condition now as they were fourteen years ago when the toll gates were abolished.

Kent.—The report of the legislative committee states that in Kent there are now no toll roads. There were formerly three toll roads. The companies refused to keep them in repair, and abandoned them. They are kept in repair by the townships now, and no tolls are charged upon them. We received no reply to our circular from Kent.

Lambton.—There is one toll road in this county, the Simcoe and Florence road, about eleven miles in length. The proprietors made the statutory return last year. In this they state that the capital stock is $35,040 ; the amount expended, $40,286; the amount received from tolls, etc., during the year, $4,487; the amount of tolls expended on the road during the year, $3,115; the dividend none; paid for repairs, $1,873 ; the amount paid on capital stock, less discount on debentures, $30,190.

The clerk of the county municipality writes, "Original cost about $40,287. The road was of greater length but about eight miles of it was abandoned. Expense of maintenance, $1,741 ; revenue, $3,096 ; all spent on the road itself and subsidiary roads. No dividends have been paid." He thinks that all the roads in the county should be maintained and controlled by the county, as under the present system every township makes its roads to suit its own especial wants without regard to the neighbouring townships. The main roads should be built under a comprehensive system and made continuous through the county. The main roads are improving, but the improvement in the township roads is slow. Public opinion is decidedly opposed to tolls.

Lanark.—A road called the Drummond and Bathurst concession road made a return which states that the capital stock was $16,820 ; the amount received from tolls during

the year, $2,807 ; the amount paid in dividends, $1,149 ; the amount paid for repairs, $618.53. Some small sums were due for unclaimed dividends and salaries, and no capital account is to be found in the company's books.

Mr. Lees, chairman of the legislative committee, stated that there are in all four toll roads in Lanark, viz.: the Scotch Line road, between Burgess and Bathurst, eight miles, two tolls; the road between Bathurst and Drummond with a branch in Bathurst; a road of six miles which runs through the township of Drummond and into the village of Lanark. This road was owned by a company which became insolvent. The road was sold and was bought by one person, who still holds it. There are eight toll gates on all these roads.

N. Lanark.—Mr. Hilliard, M.P.P., stated before the legislative committee that the Perth toll road extends one mile into Lanark county, and that this is the only toll road in North Lanark.

South Lanark.—Mr. Brooke, town clerk of Perth and county clerk of Lanark, appeared before the committee as one of a delegation. "The question of toll roads," he said, "seems to be annoying many counties, and particularly the county of Lanark. . . . Our toll roads are almost all on one side of the county . . . parts of townships only being interested in many cases . . . only two townships might be said to be directly interested in the toll roads." In some instances they, the roads, pay only two or three per cent. and in only one or two about eight or ten." He suggested a scheme of grouping the townships and parts of townships interested, and the town of Perth that they may be able to buy out the rights of the companies. In answer to questions put to him, Mr. Brooke said, "We have a twelve mile road and we have to pay four tolls on that road. We have also the Scotch line road with two gates owned by Rev. Mr. Wardrop, Toronto. The Perth and Whitefalls road was a plank road. It became worn out, was abandoned, and the township of Elmsley has since kept it 'in a kind of repair.'" Mr. Noonan, warden of Lanark, confirmed Mr. Brooke's statements, and joined in urging the amendments sought. He said "there are three roads owned by companies and two by private individuals. There are eight miles of road at present paying a fair dividend—about eight per cent. but the other roads, I would say, are hardly worth anything." Mr. Fink, Mayor of Perth, spoke to the same effect and said, "We have twenty-six miles, I think, of toll roads." I've heard the price figured at $2,000 a mile and over, but thought the whole could probably be bought for $27,000.

The county clerk sent no reply to our circular.

Leeds and Grenville.—Mr. Preston stated to the legislative committee that the stone road from Brockville to Westport, 45 miles, was a toll road, but there are now only 15 miles on which tolls are collected, the gates having been taken off the road from Farmersville. There are now four gates. Those municipalities, some years ago, both took the gates off the portion of the road which runs through their townships. He did not know whether they bought that part of the road but each township has charge of its own section and now keeps it in repair by statute labour.

Another statement submitted to the committee says, "In this county, Victoria road, built by the county, runs from Brockville to Smith's Falls. Some years ago the county council abolished tolls along that portion of the road leading through Kitley on condition that the respective road districts through which it passes would keep it in repair. Elizabethville would not agree to this, and there consequently remain two toll gates between Brockville and Unionville. There are two gates on the road leading from Unionville to Farmville the road being owned by a company of forty or fifty shareholders who continue the ownership in the hope that the county will buy them out. The road from Farmville to Westport was formerly a toll road, but tolls thereon were abolished some years ago.

In Grenville there are two toll roads, both in the township of Augusta. Tolls have been abolished on the Prescott and Kemptville road, except the five miles in Augusta, the other is from Brockville to Prescott.

This is all the information the report of the legislative committee contains. None of the roads in those counties have made the return required by law, and no answer to our circular has been received.

Lennox and Addington.—The report of the legislative committee says, "All roads being formerly toll roads have been bought up by the county.

The report says of Addington "That toll roads formerly existed in many parts of the county but about twenty years ago the county assumed them and keeps them in repair."

The clerk of the county municipality writes, "Public opinion seems to be averse to toll roads. The county assumes certain leading roads, and maintains them at its own expense.

Lincoln.—The clerk writes that there are no toll roads in this county.

Mr. Garson stated to the legislative committe "We have parts of two roads. There is the Meritton stone road, about three miles long, under the control of the parties who owned the St. Catharines and Meritton street railway. There are one toll gate and one check gate on it within the limits of the county. The other is the Pelham stone road, about seven miles, owned by the city of St. Catharines. On this also are one toll gate and one check gate. The street railway runs the full length of the Meritton stone road to the county line.

Neither of these roads made the return required by the law.

Middlesex.—The clerk writes that there is one toll road in this county called the Proof Line road. It is sixteen miles in length. Thomas Farncombe is president and James Hamilton secretary. The first cost of the work was $35,720.71; the total amount expended on the road is $249,778.57; the receipts from tolls yearly is $3,334.87. The tolls are all abolished in this county, except on this company road. The county roads are handed over to the municipalities through which they run, and are free.

Mr. Meredith, M.P.P., stated to the legislative committee that this road is seventeen miles long, and there are three tolls on it. It is a continuation of the Goderich road, and is a gravel road. It runs from the centre of the city of London to Lucan, about 1½ miles of the road being in the city, and the first toll just at the city limits. All the other toll roads in the county were abolished six or seven years ago by the action of the county council, which levelled up by giving certain amounts to localities that had no toll roads. The Proof Line road did not send in the return required by law.

Norfolk.—The report of the legislative committee states that there are now no toll roads in this county. One which formerly existed was allowed to get out of repair, was condemned and abandoned by the company, and it is now kept up by statute labour. No reply to our circular was received from Norfolk.

Northumberland.—In the returns and in the statement submitted to the legislative committee a number of roads are described as being in Northumberiand and Durham. There are in all four roads, but of these only that described as the Cobourg and Baltimore and that described as the Cobourg and Grafton sent in the returns required by law. We take, respecting these and the other roads, the statements sent by the clerk which agree substantially with those submitted to the legislative committee, and also in the case of the two roads named with the returns, except in the items stated below.

Cobourg and Grafton road, fifteen miles in length, three toll gates. The clerk sends the following statement made by Mr. Covert, governor of this road, for the year ending February 28th, 1886:—

Cost of Work	$36,185 67
Total amount expended	36,185 67
Capital stock paid up	25,975 67
Amount of tolls during year	1,630 80
Dividends paid	1,298 74
Paid for repairs	358 17
Total amount of tolls expended on work	10,201 00

Cobourg and Baltimore road, five miles, one toll gate. The statement sent us respecting this road is made by Mr. Henry Hamilton Burnham, of Port Hope, one of the directors. It is for the year 1884. Some of the amounts, it will be observed are stated in pounds.

Cost of the work	£1,443
Total amount expended	1,448
Capital stock	1,000
Tolls expended	443
Receipts from all sources in 1884, including $132.26 balance on hand	$1,115 97
Dividends paid in 1884, 8 per cent. and 6 per cent. bonus.	
Expended on repairs in 1884	242 45

In the return made to the government last year, which is probably for 1885 or 1886, the total amount received from tolls and other sources is stated to be $773.72, the amount paid in dividends to be $300, and the amount paid for repairs $254.50. This seems an extraordinary falling off.

Cobourg and Port Hope road, five miles, one toll gate. The following statement, dated February 22nd, 1884, was made by Mr. Charles Gifford, secretary-treasurer :—

Cost of the Work	$19,600
Total amount expended	19,600
Capital stock all paid up	9,800
Tolls received during year	1,000
Dividend paid 60 cents per share, 490 shares of $20 each	294
Expended in repairs during the year	200

Consolidated Port Hope road. The length of this road is not stated. We are told that "there is but one toll upon this road, but are not certain." The report for the year ending Nov. 30, 1886, is signed by the treasurer. It states :—

Cost of work	$41,680 00
Total money expended	41,680 00
Capital stock paid up in full	41,680 00
Tolls expended	.....
Year's receipts for tolls	2,140 95
Dividends paid	843 40
Expended on repairs	667 58

A committee appointed in 1886 to ascertain the prices at which those roads could be purchased, reported that the prices asked were

Cobourg and Port Hope road	$ 9,800
Cobourg and Grafton	24,000
Cobourg and Baltimore	4,000
Hope Consolidated	20,840
Total	$58,640

They recommended that the idea of purchasing be not entertained, unless the minor municipalities in which the roads are located share the expense.

The clerk writes, "There is another road running north from Port Hope to the head of Rice Lake. It belongs to the town of Cobourg. It was bought from the Dominion thirty years ago, and $22,000 paid for it. The distance is ten miles, two toll gates. I think there is another road in the township of Percy owned by the township."

Ontario.—The report of the legislative committee says, "There are now no toll roads in this (the south Riding), all such having been abandoned by the proprietors, and being now maintained by the municipalities."

The clerk writes, "There were two toll roads. The Whitby, Port Perry and Scugog, twenty-one miles, was built by the government and afterwards sold to a company who abandoned the road on the completion of the Whitby and Port Perry railroad. The Vaughan road was built by a company, was gravelled for seven miles, and the rest prepared for gravel. It was afterwards abandoned, the municipalities through which it runs paying a sum for such abandonment.

Oxford.—This county has nine toll roads of which six made, last year, the return required by law. The clerk of the county sent us the following tabulated statement:

Name of Road.	Length in miles.	Cost of road.	Received for tolls in 1886.	Dividends paid in 1886.	Expended in repairs in 1886.
Ingersoll and Thamesford G. R. Co.	5	£ 3,000	$ 731 71	$ 89 60	$ 731 71
Durham and Ingersoll G. R. Co.	15	$ 32,480	1,936 84	560 40	735 36
Woodstock and Ingersol G. R. Co.	21	Not stated.	2,687 04	1,350 00	1,845 00
Tilsonburg and Courtland G. R. Co.	5	10,000	904 38	600 00	92 87
Woodstock and Norwich G. R. Co.	9	18,828	704 08	4 00	429 97
Woodstock and Huron G. R.	5	3,400	796 00	Nil.	260 00
North Oxford and West Zorra G. R.	10	16,000	885 00	Nil.	300 00
Ingersoll and Northern G. R. Co.	5	7,360	537 27	183 80	1,602 38
Ingersoll and Port Burwell R. Co.	20	39,980	4,233 64	770 67	2,649 13

Of the Tilsonburg and Courtland there is only about one mile in the county, and of the Ingersoll and Port Burwell only seventeen miles. The clerk sends also the names of the presidents or of the secretaries of the companies, or both. He gives the name of Miss M. Matheson, Embro, as the president of the Woodstock and Ingersoll road. The official return states that "this road is not owned by a joint stock company, and that its cost is unknown. It states also that this road was originally built by the Government. The other roads for which returns have been made are the Woodstock and Norwich, described as plank and gravel, capital stock, $14,400; Woodstock and Huron, capital stock, $4,425; Ingersoll and Port Burwell, capital stock, $39,980; the Tilsonburg and Courtland, capital stock $10,000; and the North Oxford and West Zorra, capital stock $16,000. The dividends paid by all these roads, except one or two, are very small.

Parry Sound.—The legislative committee state that there never has been a toll road in this district.

Peel.—Mr. Chisholm, M.P.P., stated to the legislative committee that this county has two toll roads, one eight miles long, which is a continuation of the York road, is owned by the county of York, and has two toll gates. The other, three miles long, with one toll gate belongs to a private individual.

The clerk writes that he believes there is one toll road known as Dundas street, owned by the municipality of the township of Toronto.

Perth.—The clerk writes that "there is now no toll road in this county. There was one called the Fojey road which cost $2,000 per mile; the expense of maintenance is $50 per mile. An inspector has charge of the principal roads forming boundary lines. He directs what repairs shall be made; the work is let by contract. The county pays the contractors and charges the amount to the municipalities of which the roads are the boundaries. This was rendered necessary because the municipalities neglected the roads. Public opinion is against toll roads."

Peterborough.—The clerk states that there are no toll roads in this county.

Prescott.—The clerk of Prescott and Russell writes that there are no toll roads in this district. (See Russell.)

Prince Edward.—The clerk states that this county "never had any toll gates." So the legislative committee also report.

Renfrew.—This county, the clerk states, has no toll roads.

Russell.—The legislative committee's report says, "There are three toll roads in this county. The Montreal road, ten miles long, with two toll gates; the Russell road, ten miles long, with two toll gates; the Gloucester and Osgoode road, with four toll gates." At least one of these appears to be a road described in the Statutory return as being in the county of Russell.

Simcoe.—The clerk states that there are no toll roads in this county. The legislative committee make a similar statement.

Stormont.—The report of the legislative committee says, "There are no toll roads in this district. About ten years ago the town of Cornwall had a toll road, which it put into good repair and gave over to the township free from tolls. (See Dundas.)

Victoria.—The legislative committee report that there never were any toll roads in this county. The clerk makes the same statement.

Waterloo.—We have not obtained any information respecting Waterloo.

Welland.—The clerk thinks that there is no toll road in this county.

Wellington.—The clerk writes, "A good many years ago there were several joint stock road companies in this county and tolls were collected. The county council purchased the roads and collected tolls for a few years, but the gates were ultimately taken off, and the roads have been free for many years. The county council grants annually about $50 per mile for the maintenance of the county gravel roads.

The report of the legislative committee says: "The council owns over 150 miles of gravel roads, acquired partly by purchase from joint stock companies and partly by assumption and construction. Tolls were abolished by the action of the county council ten or twelve years ago.

Wentworth.—A statement submitted to the legislative committee shows that there are nine toll roads in Wentworth. The names and length of eight of those and the valuation set on each by a committee of the county council are stated as follows:—

Name.	Length.	Value.
Hamilton and Stoney Creek	9 miles	$31,000
Main Street	2 "	7,500
Barton Street	4 "	7,500
Waterdown and Port Flamboro	2½ "	3,000
Hamilton and Flamboro	15 "	50,000
Hamilton and Nelson	4½ "	17,447
Barton and Glanford	14 "	21,000
Sydenham	1½ "	2,000
Total	51½ miles	$139,447

Another road called the Hamilton and Brantford is owned by the township of Ancaster, which refuses to place a valuation upon it, claiming that it is a source of revenue to the township.

The clerk reports that there are fourteen roads in this county of an aggregate length of 109¼ miles, including the short distance for which one of the roads extends into Halton and another into Waterloo. The return sent by the clerk contains so much useful information that it may be well to give it in full.

INFORMATION RESPECTING THE TOLL ROADS IN THE COUNTY OF WENTWORTH.

Name of Road.	Owner.	Length.	Original Cost.	Revenue.	Expenditure.	Net Revenue.	Remarks.
		Miles.	$	$	$	$	
Hamilton and Stoney Creek Road	A. E. Carpenter, Hamilton	8	36,000	3,939	1,361	2,578	Revenue, expenditure, and net revenue are those of the year 1886.
Barton Gravel Road	Barton Road Co., A. E. Carpenter, President; A. E. Carpenter, jr., Sec'y	2	5,000	1,183	413	770	do do
Hamilton and Saltfleet Road	Hamilton and Saltfleet Road Co., A. E. Carpenter, jr., Sec'y, Hamilton	4	7,500	1,779	559	1,220	do do
Hamilton and Flamboro Road	Hamilton and Milton Road Co., Miles O'Reilly, Pres.; J. N. Waddell, Sec'y	14	.....	6,362	1,085	5,277	Revenue, etc., are those of the year 1885.
Hamilton and Nelson Road	Hamilton and Nelson Road Co., Oliver Springer, President	6¼	.....	2,008	1,574	434	do do
Waterdown & Port Flamboro Road	Waterdown and Port Flamboro Road Co., A. W. Brown, Treas., Aldershot	2¼	.....	512	431	81	Small portion of the road is in Halton. Revenue, etc., are those of the year 1885.
Barton and Glanford Road	Barton and Glanford Road Co., A. E. Carpenter, Pres.; J. N. Waddell, Sec'y.	12½	.....	4,038	1,394	2,644	do do
Hamilton and Ancaster Road	Township of Ancaster	14	21,600	3,901	3,027	874	do do
Dundas and Waterloo Road	Dr. A. H. Walker, Dundas	19½	.....	4,120	918	3,202	Revenue, expenditure, and net revenue are those of the year 1883. About 3 miles of the road is in Waterloo.
Sydenham Road	do do	1½					
Guelph and Dundas Road	County of Wentworth	14	.....	1,028	1,755	.....	Revenue, etc., are those of the year 1886.
Dundas and Binkley Road	do do	1¼	22,943	1,422	405	1,017	do do
Governor's Road	do do	5	8,000	643	752	.....	do do
Saltfleet Road	do do	5	7,000	250	515	.....	do do

COUNTY CLERK'S OFFICE,
HAMILTON, January 24th, 1888.

G. S. COUNSELL,
Clerk Co. Wentworth.

Of all these roads only the Barton road and the Hamilton and Saltfleet road made the return required by law. These returns agree substantially with the statement made by the clerk. The Hamilton and Stoney Creek road made an imperfect return, which was sent back for completion.

York.—The report of the legislative committee says, "The toll roads in York are as follows:—York roads fifty miles, York and Vaughan, thirteen miles, and York and Davenport road three miles long. York roads belong to the county.

The clerk states that the York roads are about fifty-eight miles in length, that the county paid $72,500 for them, and the net revenue is $3,905.34. The Weston road, owned by a company, is about seven miles in length and cost $14,000. The net revenue is $924.54. The Holland River road, owned by a company, is four miles in length and cost $4,000. The net revenue is $640. The Davenport and the York and Vaughan roads, he says, made no return.

The Holland River road made the return required by statute. According to that the capital stock of the company is $4,000, but the road cost $11,890. The difference corresponds exactly with the amount stated as "Tolls expended." The total amount received as tolls was $937, the amount paid in debentures was $640, and the amount expended in repairs was $315.21.

The Weston road company, in their return state the capital of the company is $14,016, the cost of the road $14,000. The amount received from tolls, etc., during the year $2,094.22, the amount paid as dividends $840.96, and expended in repairs $1,253.26. The other two companies made no return.

The amounts given as the total cost of these roads which have made the statutory return appear to be made up, in nearly every case, of the first cost, and the amounts expended from year to year in repairs, and therefore they afford no basis for calculating the present value of any of these roads.

In many cases the proportion of the total receipts expended on the repairs of the roads seems very small. Where this system has been followed for even a few years the roads must necessasily be in a bad condition.

The tolls of the Woodstock and Ingersoll road amounted to $2,687, and $1,845 was expended on the road. Part of this must have come from a reserve fund as $1,350 was paid in dividends. The receipts of the Ingersoll and Port Burwell road were $4,233,64. The dividends paid were $770.67, and the repairs cost $2,649.13. A large balance is not accounted for.

The receipts of the Bytown and Nepean road were $5,390.80. The amount paid in dividends was $660, and repairs cost $2,245.89. This leaves a sum of over $2,400 not accounted for.

The receipts of the Ottawa and Gloucester road were $8,335. The dividends paid amounted to $4,471.60. on a capital stock of $63,880. The amount expended in repairs was $2,887.94. About a thousand dollars remains not accounted for.

In only one instance does a return state exactly the cost of collecting the tolls. On the Woodstock and Ingersoll road it cost $576 to collect $2,687.04. The Barton Road Company state that they expended on repairs and in payment of gate-keeper $412.58, the total receipts being $1,183.49. This must mean that very little was expended on repairs.

The Hamilton and Saltfleet road made a similar return. Its gross receipts were $1,779.46. and the cost of repairs and of collecting tolls amounted to $559.35. It may be that in several other cases the cost of collection is included in the amount placed under the heading, paid for repairs.

There may be several toll roads in the Province of which we have not been able to learn anything. The absolute abolition of tolls on any day in the near future would cause all to be heard from, whose proprietors suppose that under such circumstances they would be entitled to compensation.

THE LOCAL ADMINISTRATION OF CRIMINAL JUSTICE.

In addition to the collection of information relating to the municipal institutions of this Province, we are directed by our commission "to make enquiries with reference to and report on the local machinery in use, or necessary, to secure the due administration of criminal justice."

In entering on this part of our duties, we were met with a two-fold difficulty. First, the absence of any works on the subject, and our inability to procure much information from any other source; and, secondly, the fact that there is no regularly organized system in this country respecting the management and working of a police body, except, perhaps, in the principal cities. The conditions of this country and the general requirements of the administration of police justice are so different from those of England, or any of the other old and populous nations, that no analogy can reasonably be made, and what might be of a most beneficial character there, would, in many instances, be manifestly unsuited to a province such as ours, with its wide extent of territory, its comparatively small population, and the absence of large centres which, more than anything else, afford the means of localizing crime and render its discovery more a question of well organized, systematic police watchfulness than of individual effort on the part of constables. In some of the older countries, a national system of constabulary is in existence. The wisdom of this has often been questioned, and without entering into the merits of this form of police authority, we may be permitted to state that, in our opinion, the reasons for such a system do not exist here. Happily, we live in a country where there are no great conflicting elements at war with each other. There are no uprisings of the people requiring the strong arm of the law to suppress. Public sentiment is more inclined to peaceable and conciliatory measures than to physicial resistance, and whether the law is considered good or bad in any particular case, it is rarely opposed, and then only in individual instances rather than by any national or general action on the part of the people, who prefer to seek a remedy by what are known as constitutional means and by securing such necessary remedial legislation as may be deemed expedient.

There is another point in this connection to which we wish to call attention. To import into this country a provincial or national system of constabulary would involve a very large yearly expenditure wholly out of proportion to the small amount of crime to be dealt with. Instead of remaining stationary, this expenditure would naturally increase, and in time would reach a point beyond the financial resources of the Government, and, if distributed amongst the different municipalities, would create heavy burdens on the people. To ask the Province to bear this outlay would be unfair to dozens of municipalities where crime is wholly unknown, and to put the municipalities to the expense of maintaining a standing constabulary would involve a very serious responsibility. It does not appear to us that any such police force is required in Ontario. In many counties, the greater part of the work of our Justices of the Peace and Police Magistrates is confined, we are glad to say, to cases of violation of municipal laws and regulations, and these are not of a sufficiently serious character to warrant their removal from the hands of the local authorities. Another considerable portion of the duties of justices is confined to the administration of the license Act and of other laws of a similar character, none of which can, strictly speaking, be called criminal. So far, therefore, as the enforcement of these and other regulations of a purely municipal nature for the protection of the public morals are concerned, there is little or no ground for complaint, and we have not attempted to deal with this branch of the subject, feeling convinced that no suggestions could be made by us which would in any degree add to the harmonious, simple, and effective working of the present machinery in this respect.

Turning to the real question, namely, what is the condition of the local machinery now in existence in this Province for the enforcement of purely criminal laws, we cannot but express our earnest opinion that in many instances, the means for the detection of crime are not as efficient as they ought to be. When an offender is discovered and caught, his punishment is sure to follow, if the proof of his crime is sufficient. The acting magistrates throughout the province perform their duty, we believe, thoroughly and impartially,

and appear to have a desire to mete out to the criminal his just reward. The extensive powers now possessed by Police Magistrates and County Judges sitting without a jury greatly tend to facilitate the punishment of crime, and make the administration of criminal justice a speedy and inexpensive matter as compared to the state of this branch of the law a few years ago. But whilst immense strides towards perfection have been made in the trial of prisoners and the enforcement of their sentences when convicted, the equally important matter of what is the best means for the detection of crime and the apprehension of wrong-doers has been, to a large extent, allowed to remain as it was.

If the provisions of the law of this Province relating to the appointment of constables were carefully carried out, and if only the best men were selected to act in that capacity, perhaps there would not be so much room for criticism. We find, however, that men are frequently appointed to the onerous and responsible position of peace officers who have neither the experience nor the special natural requisites necessary to success. Many of them have not the time to devote to the duties of their office which they should have, and their remuneration is so small, and in numerous cases, so uncertain, that even if they had the requisite time, it would not pay them to engage in the arduous and often lengthy task of investigating facts and procuring evidence necessary to discover guilt, nor to pursue the parties against whom the evidence, when discovered, is directed. That the detection of criminals is the most important part of the administration of criminal justice is too patent to admit of argument. No matter how perfect our courts of law may be, it is manifest that their usefulness may be practically annulled if our police system is defective. The prompt and almost certain arrest of men who commit crime is of as grave consequence to the community and to the safety and good order of society as the certain punishment of such men when brought before the courts for trial, and we are convinced that sure detection would do more to prevent the commission of offences than the best system of remedial punishment can possibly accomplish, notwithstanding the care and wisdom which characterize the judgments of those in authority in dealing with the penalties attached to guilt. A serious responsibility, therefore, rests upon those to whom is entrusted the appointment of constables and other peace officers, and the selection and control of these men should be marked with the utmost care and discretion.

The absence of some general head or central authority is very noticeable in our present police management. In places where there is no Board of Police Commissioners, constables are generally appointed by magistrates or at the General Sessions. They perform the functions of their office largely in their own discretion, There is no superior police officer to whom they can look for guidance or instruction. They are not subject to the same direct authority as magistrates are, nor are they held responsible for the proper performance of their many duties as they should be, for the simple reason that there is no one in whom are vested the personal authority and obligations of an inspector. We are now referring to the rural constabulary generally, and not in any way imputing inefficiency to them individually, but pointing out the defects which we conceive to be in the system more than in the members who comprise what may be known as the county constables of this Province. A county judge, as chairman of the General Sessions, has no direct official duty cast upon him to inspect, manage, or generally direct the different constables within his own county. The magistrate cannot reasonably be expected to constitute himself a tribunal of enquiry or an authority over the actions of the peace officers in his district, and we are not aware that any remuneration is provided, even if he assumed to act in the premises. In most cases, it is not likely that either the judge or the magistrate is possessed of any special training or experience which would make his advice of any practical value in regard to the duties of constables, nor does it appear, except in case of gross dereliction of duty, that either of the officials named ever interferes with the mode in which a constable performs his duties. Whilst it is the bounden duty of a justice of the peace to see that the law is not openly set at defiance and the well-being of society endangered, it is not, in practice at any rate, his obligation to act as a supervisor of constables in so far as their mode of work and the means employed for the discovery of crime are concerned. It is a sound principle that a magistrate shall not act the part of a prosecutor or detective, but shall confine himself to the due administration of the law in a just and impartial manner as applied to the cases brought before

him for investigation or adjudication. He is not to make the cases, but to deal with them when presented through the instrumentality of the police officer. On the whole, it is, therefore, a safer and wiser course for the magistrate to hold himself free from the pursuit of criminals and the ordinary means used for the detection of guilt, lest it might be urged against him that his judgment was based on circumstances and suspicions not founded on sworn testimony.

Keeping in view the exigencies of the public welfare, and having a due regard for economy, we are of opinion that all the constables, not subject to the control of a board of police commissioners, should be placed under the authority of a chief officer who might be named provincial inspector of police. His duties would be to advise and assist local peace officers, to watch over their actions, to report on their efficiency or the reverse, to make all necessary investigations regarding complaints against them, to suspend for the time being any officer found to be negligent in the performance of his duty or guilty of misconduct; to incur, with the consent of the magistrate seised of the case or the County Crown Attorney, such reasonable expense as might be found necessary for the detection of offences and the arrest of the offenders, and generally to aid in the due administration of criminal justice throughout the Province as distinguished from matters of a municipal character. This would not, by any means, be as expensive or as laborious a duty as may appear at first impression. The more complicated and serious offences are now investigated to a great extent by the two Provincial officers permanently employed by the government. Their work is provincial in its scope and object. Such crimes as murder, arson, and other high offences of that nature are investigated by them where the local authorities consider it proper to call for their assistance, and the government deem it to be in the public interest that they should make the necessary enquiries. In cases, too, where a series of larcenies or burglaries have taken place, and are supposed to be the work of professional evil-doers preying upon the public, it has been found absolutely necessary to employ government detectives possessing authority in all parts of the Province. But there are many cases which could be very properly and efficiently investigated by the local authorities with the aid of such an officer as we have indicated and which, we fear, are not now met with that decisive action which the circumstances warrant, for the reason that no thorough system of detection exists, no proper control is exercised over the local constables, no means of properly paying them their necessary disbursements are provided, and sufficient authority is not conferred upon them to enable them to pursue the criminal beyond certain limits.

Judging by the records of crime in this Province, and taking into account the class of offences which would come within the scope of an inspector's duty, we think that one good, active and efficient officer all that is required. His salary and expenses would be borne by the Province, and his reports should be made to the Lieutenant-Governor in Council, who would have the right to discharge any constable on sufficient reasons appearing for such action being taken, just as the commissions of magistrates and other public officers of that character are liable to be revoked. The present Provincial staff, not including the constables on duty along the frontier of the United States, is composed of but two officers. Special officers have frequently to be employed to meet the demands for police assistance made upon the government, and the expense would not be materially increased if another permanent officer were appointed. One of the three members could then be designated as the inspector of the rural constables, and his duties might include the investigation of many of the criminal cases now enquired into at the instance of the government when not otherwise occupied with his strictly official duties of insp ction.

In considering the authority of constables, we are aware that the power of executing warrants for arrest is derived from Dominion legislation, but we cannot permit this essential element to pass without calling attention to the necessity for some amendment of the existing law in this respect. The provision requiring warrants for arrest in an outer county at places beyond the limit now prescribed by statute, to be backed by a magistrate for such outer county, is an injury instead of a benefit or protection. Delay is occasioned, and very often difficulties present themselves which are not easily overcome by reason of this meaningless and unnecessary requirement; and delay in the

execution of a warrant for arrest constitutes the great safety of the criminal. A warrant issued by a magistrate having competent jurisdiction to issue the same, and placed in the hands of a peace officer for execution, ought to be valid in any part of the Province, and the officer having such warrant ought not to be hampered and frequently rendered helpless by the condition as to backing by some other justice, whose act can give no virtue to the warrant, and whose duty in this respect is purely ministerial.

It is not intended by this suggestion to make every county or village constable a provincial officer. His authority to pursue and arrest a criminal anywhere in Ontario would be confined to cases actually arising in his own county or municipality, and the expense attendant upon such pursuit and arrest ought to be incurred only on the authority of the magistrate issuing the warrant. Some check of this kind would be necessary, and we think that, considering the high character of our magistracy, no abuse would occur if this power were vested in them, subject, perhaps, to the approval of the inspector of police as an additional safeguard. As the law now stands, and owing to the uncertainty of the remuneration and re-payment of the necessary expenses, a constable will not venture beyond the narrow limits of his own district. If he does, he finds himself without authority to act unless he goes before some other magistrate and makes the required affidavit as to the genuineness of the signature to the warrant, and procures the endorsement; and what is of vital interest to himself, he may not be recouped his expenses or paid for his services. We respectfully suggest that the attention of the Dominion Parliament be called to this state of things as regards the backing of warrants and the authority of constables to execute same, believing that if the law were amended in accordance with the above, the result would show that one great obstacle had been removed from the not always pleasant path of the police officer.

Another serious question is the proper remuneration of constables. That they are not paid according to the work done or in proportion to the character of the duties they are called upon to perform, is too apparent. To illustrate: suppose a constable is required to travel five miles to effect service of a summons, The fees would be fifty cents for mileage, and twenty-five cents for service, in all, seventy-five cents. To do this, he is compelled to hire a conveyance; this costs him at the lowest estimate, $1.50 He is consequently out of pocket 75 cents by the transaction. If he does not succeed in effecting service, he gets mileage only, and even this is conditional upon the fact that he convinces the board of audit that he used due diligence. He loses, perhaps, a whole day besides the actual pecuniary loss above mentioned. This is no uncommon occurrence. If an arrest has to be made, he gets for making the arrest and for his responsibility in safely delivering over to the proper authorities the person arrested, the sum of $1.50, which, with his mileage in the case in point, would make $2.00. He is therefore called upon to perform an important and unpleasant duty, to run certain risks, to lose a day's time, and receives only 50 cents actual remuneration, and may be compelled to wait months for payment! If he travels by rail, the following case will show the fees received: A warrant is issued in some part of the county of Wellington five miles from a railway station. Assuming that it costs one dollar for a conveyance each way to and from the railway at Guelph for instance, the fare to Toronto and return would be $2.50. If the person named in the warrant is in Toronto, in all probability two days are consumed in getting the necessary indorsement on the warrant, in ascertaining the whereabouts of the offender, and in making the arrest. Hotel and other necessary expenses would not be less here than $2 per day. This would make in all $8.50. Against this the constable receives mileage, $5.50, and making the arrest $1.50, in all $7, causing him a loss of $1.50 in cash and two days' time. If he failed to make the arrest, he finds himself actually out of pocket $3. Or assuming that only one day is consumed and the arrest is made, he would earn 50 cents as a compensation for all his trouble, time and vigilance. Cases of this sort could be multiplied indefinitely, and in no instance would it be found that the position of the constable is any better than it is in the illustrations given above.

Another instance of the imperfect provision made for the remuneration of constables arises in this way. On a crime being committed in a rural district some distance from the residence of the county crown attorney, a constable is informed of the facts and is expected to make the necessary investigation. He spends several days in tracing up the

crime to the guilty party, and succeeds in making the arrest. For these services he can claim no reward as of right. His payment depends on the action of the county crown attorney and the warden of the county, who may, if they see fit, withhold the necessary authority for payment, and the constable, not having the warrant at the time of the arrest, although a serious felony has been committed, is practically without a remedy. The Act passed by the Ontario Legislature for the purpose of aiding in the detection of crime, whereby the warden of the county and the county crown attorney may engage special services and make provision for their payment, was a step in the right direction, but it is too often the case that owing to somewhat strict ideas of economy, and the hope that the government will assume the expense of sending one of their own officers, the Act is not taken advantage of in the liberal manner which one would expect, and in many counties, the warden and county attorney live so far apart that prompt action is impossible, and action of any kind is thereby so long delayed that attempts to reach the offenders are found to be useless.

Whilst this condition of affairs exists it cannot be expected that an efficient country constabulary can possibly be maintained, and we respectfully suggest that some more liberal and satisfactory system of remuneration be adopted.

The delay caused by the present mode of audit of criminal justice accounts is also worthy of notice. A constable is required to fill up a somewhat complicated schedule shewing all the details of his account for services performed. This comes before the county board of audit, which may not meet for nearly three months from the rendering of the account. Some objection is taken to the propriety of the county assuming the payment, and it is referred to the government auditor, who has charge of this class of accounts. By the time his decision can be acted upon, the board has adjourned, and three months more must elapse before the constable can get even his expenses. As a rule, constables are not wealthy men, and it is manifestly unfair that they should be compelled to wait month after month for the payment of their small allowances, and perhaps in the end find that they are not legally entitled to any compensation whatever. All such accounts ought to be promptly paid on the certificate of the county crown attorney and county judge or proposed inspector, when the same are payable by the county, and those payable by the Province should be paid upon being presented to the government auditor and accompanied by the certificate of such inspector.

We make these suggestions with a view to render the working of our country constabulary more efficient, and not with the intention of making their remuneration an expensive matter to the counties or to the Province.

If this or some similar scheme be adopted, and the amendments we have indicated be made law, there is every reason to hope that the country constables would soon number amongst their members, many officers who would do credit to the most efficient and best organized police systems of the large cities of Canada or the United States.

TORONTO POLICE MAGISTRACY.

The general condition of the Police Magistracy throughout the Province appears to be highly satisfactory. In places outside of Toronto, the duties are not so great as to be beyond the power of one police magistrate in each locality. The salaries attached to the office are moderately commensurate with the amount of work to be performed. The working of the present system is, on the whole, admirable, and owing to the greatly increased jurisdiction of these officers, together with the like increase in the powers of County Court Judges sitting without a jury, the counties are saved much unnecessary expense, prisoners obtain speedy trials, and the Courts of Oyer and Terminer are relieved

of a large class of criminal cases which otherwise would come before them. Owing to this fact, criminal calendars at our different Assize Courts have been remarkably light during the past few years, and we have heard of no injustice having been done under the present system of disposing of criminal cases. No suggestions, therefore, occur to us with regard to any change in the working of our general Police Magistracy.

We desire, however, to call attention to Toronto as being exceptional, not with reference to the administration of the law, but to the immense volume of work performed by the city police magistrate. The wonderful growth of this city during the past ten years, the central and important position which it occupies in this Province, and the easy and numerous modes of communication it has with all parts of Canada and the adjoining States, make it more or less a resort for criminals of all classes. Professional burglars, crooks, confidence operators and others of that nature frequently come here from the large cities in the northern parts of the United States and contribute largely to the increase of crime in our midst. But the elements of crime are not wanting in certain classes of our own population. Petty larcenies are of common occurrence. House-breaking is an offence which we see reported in almost every day's newspaper. Forgeries have, of late, unfortunately increased to an alarming extent, and occasionally even more serious crimes are perpetrated. This is, of course, to be expected in a large city, and without entering into the causes of this condition of things, we cannot shut our eyes to the fact that as the city grows in importance and increases in area and population, crime is not likely to be lessened to any material extent.

In saying this we do not wish to be understood as intimating that Toronto is an immoral city. Statistics show that Toronto compares most favorably with other populous Canadian and American cities, but it is an admitted fact that a wealthy, densely populated, commercial city like this affords opportunities for crime and a certain safety to the criminal class which cannot be obtained elsewhere. The result is that the duties of the police magistrate here have increased enormously and are now quite beyond the grasp or administration of one official. A certain amount of time must necessarily be devoted to each case, however trivial, and the greatest care ought to be exercised in dealing with criminal prosecutions lest the innocent be punished and the guilty escape. Taking the records of the Toronto Police Court for the past few years, it may conclusively be shown that one police magistrate is not sufficient to deal properly with the vast number of cases brought into his court. This is not said because of any complaints concerning his administration of the law. We have heard of no complaints, nor do we believe they exist. The present incumbent receives commendations from all sides for the faithful performance of his duties, and it is surprising, when all the circumstances are considered, how well the business is conducted in the police court here and what an immense volume of work is disposed of by him. We believe, however, that the efficiency of this court would be much enhanced by the appointment of a competent assistant, whose duty would be to dispose of all the less serious offences, such as drunkenness, disorderly conduct, violations of ordinary municipal by-laws, and such matters of a like nature as are continually arising, leaving the graver offences to be dealt with by the present incumbent, who would thus become the senior officer in point of jurisdiction. This arrangement, we feel satisfied, would add materially to the usefulness of the police court as a cheap, prompt, and simple means of investigating and punishing offences against the criminal law. Greater care could thus be given to the cases, a more thorough investigation of each charge could be made, and that serious and painstaking consideration of complex and intricate points of law and evidence could be exercised, which, under existing circumstances, it is impossible to give and would be unreasonable to expect.

The strongest argument in support of the suggestion made by us for the appointment of an assistant Police Magistrate, is founded on the following tabulated statements showing the volume of business actually done in the Police Court. In order to ascertain what is the relative amount of work done here as compared to that performed in other cities, we caused communication to be had with the undermentioned places, and the figures which are given are those received from the officials of such places in reply to our enquiries.

The returns are for the year 1887, and are for cases actually tried or disposed of, and do not include remands :—

Place.	Number of cases tried.	Number of Judges or Police Justices.	Average to each Judge or Justice.
Chicago (10 months)	39,285	7	5,612
Buffalo (10 months)	9,202	4	2,300
Detroit (10 months)	7,123	2	3,562
Montreal	9,843*	3	3,281
Milwaukee	4,332	1	4,332
Cleveland	3,588	1	3,588
Philadelphia	58,000*	28	2,071
Baltimore	29,538	7	4,220
Toronto	10,597	1	10,597

It will be seen from these statistics that the number of cases tried and investigated by the Toronto Police Magistrate is more than double the average number disposed of by each of the Judges or Police Justices of any other city above named, and, in several cases, more than four times the amount. In addition to this, there must be added remands from time to time, which amounted last year to over 5,000, making in all over 15,000 cases including the remands. It is true that many of these remands are not at the time investigated, or if so, are only partially heard; but even remands require time and attention, and it is most important that defendants or prisoners should not be put to the expense and delay of having their cases remanded unless there is good ground for so doing. A careful discretion ought always to be exercised by a Police Magistrate in remanding prisoners, as the mere fact of a remand in certain cases, often creates an impression on the public mind that the person charged is more or less guilty, besides often causing exceedingly great inconvenience in procuring bail, the not obtaining of which, frequently means a week in gaol.

In order to ascertain the amount of one day's work at the Police Court, the Police Magistrate was asked to give his record for Monday, the 6th day of February, the date being casually selected. On that day, as appears by the records of the Court, he had before him 23 indictable offences and 79 miscellaneous cases. The number of witnesses examined was 47. The sum of $245 in cash was received, 40 fines were imposed, and the liability of those committed in default of payment was represented by $105. Every day is not perhaps so specially marked, but we are assured that the above is no uncommon result, except on Saturdays, which are kept as free from business as circumstances will permit.

The following statement, received from the Clerk of the Court, shows the monthly record and daily average for the period therein named.

* Approximate.

STATEMENT of number of cases tried at the Toronto Police Court during the following periods, including remands.

Year.	Months.	Number of days.	Number of cases tried.	Daily average, except Saturdays.	Saturday's average.
1886	August	25	1018	45	19
"	September	26	1291	56	17
"	October	26	1016	44	18
"	November	25	1169	52	21
"	December	25	1082	48	12
1887	January	25	894	40	13
"	February	24	845	39	16
"	March	27	1095	45	14
"	April	24	1111	53	23
"	May	25	1151	50	24
"	June	24	1038	47	23
"	July	24	1437	66	36
"	August	26	1634	70	26
"	September	26	1784	71	30
"	October	26	1964	88	27
"	November	25	1553	62	18
"	December	26	1216	47	19

The above statement includes remands and preliminary investigations as well as cases actually and finally tried and disposed of.

The following statement shows the number of cases actually tried and finally disposed of monthly by the Police Magistrate in the Police Court, Toronto, for the year 1887, not including remands:—

January	627	July	983
February	586	August	1,074
March	672	September	1,092
April	774	October	1,352
May	780	November	1,076
June	787	December	794
		Total	10,597

These figures show that the work done by the Toronto Police Magistrate is more than the average calendar at Bow Street Police Court, London, England, where *two* police magistrates sit alternately, each working three days per week, and where the jurisdiction is much more limited. It may be noticed here that the jurisdiction of the American criminal judges and police justices in the inferior courts of first instance, is somewhat similar to that of our police magistrates, and in some cases, our police courts, on the consent of the parties accused, have a more extensive jurisdiction than is possessed in many of the States of the Union.

STATEMENT of fines and fees imposed and received :—

The total amount of fines and fees paid directly by the Police Court into the city of Toronto Treasury, in the year 1887, was	$10,013 25
The amount of fines and fees collected at the gaol on Police Court convictions and paid into the City Treasury, in the same year, was	3,220 65
Making a total of	$13,233 90

In addition to this, there are the fines derived from the prosecutions in the Police Court for violations of the Liquor License Act and paid to the License Inspector, amounting, we are informed, to $7,000 or thereabouts, making a grand yearly total of money actually derived from the administration of the law by one officer, of $20,000.

The total amount of fines and fees imposed by Police Court convictions for the year 1887, was as follows :—

Total fines imposed, including those under License Act.	$19,822 47
Total fees imposed	12,709 90
In all	$32,532 37

The officials engaged in the business of the disposal of cases besides the Police Magistrate and the necessary attendant constables, are the clerk and two assistants. These officers need not be increased by the appointment of another magistrate.

The following shows the relative increase of work during the past four years, being the cases actually tried (remands not included) :—

Cases tried during the year 1884	7,308
" " " 1885	7,954
" " " 1886	8,570
" " " 1887	10,597

In view of the above facts, we would respectfully suggest that an Assistant Police Magistrate be appointed for the city of Toronto.

(No. 43).

Return shewing the number of lunatics in the County Gaols of the Province for each month from the first day of March, 1886, to the first day of March, 1887, and shewing also the number of days each lunatic was detained in the gaol. The number of buildings now under construction for the accommodation of the insane. The number they are expected to accommodate, and when the buildings will be ready for use. (*Not printed.*)

REPORT

Of the Commissioners of the Queen Victoria Niagara Falls Park for the year 1887.

Presented to the Legislative Assembly of Ontario.

By Command,

ARTHUR S. HARDY,
Provincial Secretary.

Provincial Secretary's Office,
Toronto, 31st February, 1888.

QUEEN VICTORIA NIAGARA FALLS PARK.

To His Honour the Honourable

SIR ALEXANDER CAMPBELL, K.C.M.G.,

Lieutenant-Governor of the Province of Ontario:

SIR,—The Commissioners have the honour to report that, on the passing of the "Act respecting the Niagara Falls Park," assented to on the 23rd day of April last, they applied for, and by an Order in Council, received authority to negotiate a temporary loan pending the negotiation of the Bonds which they obtained to pay for such properties taken for the use of the Queen Victoria Niagara Falls Park, as had been placed in the possession of the Commissioners.

Under the powers conferred upon the Commissioners by the 7th clause of the Act referred to, they made arrangements for the issue of $525,000 Bonds under the designation of "Queen Victoria Niagara Falls Park Bonds," redeemable in forty years from the date of issue, viz., in 1927, bearing 4 per cent interest payable half-yearly in London, England, the payment of principal and interest guaranteed by the Province of Ontario.

Tenders for the Bonds were called by advertising in London, England, New York, Montreal and Toronto.

The Bonds were sold at a premium of $1.84 per cent, realizing $534,667.14.

Authority having been obtained under clause No. 4 of the Act referred to, to acquire the rights and privileges of that part of the St. Catharines, Thorold and Niagara Falls road within the present limits of the Park, also to ascertain the value of the remaining portion of the road to its northern limit, reference had to be made to Arbitrators which resulted in an award that was accepted by the parties controlling that road.

The total amount awarded was $7,500—$4,000 of that amount to be paid for the portion of the road lying within the present limits of the Park.

This amount has been paid by the Commissioners.

The remaining amount of the award, viz., $3,500 for that part of the road extending from the present northern boundary of the Park to the northern limit of the road, is to be paid, if sanctioned by the Legislature at the present Session, within fifteen days after the end of the Session, with interest at 5 per cent per annum.

The Commissioners beg to recommend that the required sanction be obtained to make that payment.

The Commissioners have also to report that in accordance with the Order of Council dated the 15th July last, passed on the report of the Commissioners dated the 27th June last, they have given notice to the occupiers of portions of the bank of the Niagara River near the Whirlpool Rapids, of their intention to take possession of these portions of the bank for the use of the Park.

Work in the Park has been much delayed by not obtaining possession of the several properties acquired, upon which stood a number of buildings that had to be sold and removed.

The Prospect House Hotel property was not given possession of until November, and the Table Rock House in December, and the Museum is still occupied by the proprietors.

All the buildings have been removed, with the exception of the Table Rock House and the Museum, with the small buildings attached to it.

The contents of the Museum building, owned by Mr. Saul Davis, required the erection of a suitable structure to receive them, and sufficient time was asked by him to

build one. This is now in an advanced state towards completion, and will be ready for occupation early in March. (It is on the United States side of the river.)

A great deal of work has been done in the Park towards restoring it to the condition it should be placed in.

For detailed description of work done during last season, the Commissioners beg to refer to the accompanying Report of the Park Superintendent, Mr James Wilson.

The Commissioners submitted for approval of the Lieutenant-Governor in Council a scale of Tolls to be charged to visitors for the use of Bridges and other artificial works requiring care and maintenance, also for the use of the Hydraulic Lift, leaving the entrance to the Park free.

An Order in Council authorizing the Commissioners to collect the proposed rates has been received. By-laws and Regulations for the management of the Park are prepared, and will be submitted at an early day for approval by the Governor in Council.

The delay in obtaining possession of the several properties, which retarded the progress of works beyond the usual season for visiting Niagara Falls, caused the Commissioners to give the subject of commencing to charge visitors very careful consideration, and they decided on postponing collection of Tolls until next Spring, except for the use of the Elevator.

The works which might be executed in such an exceptionally wonderful locality as Niagara Falls Park are almost immeasurable in extent and variety, and can all be done without destroying, but rather aiding, the development of its importance and grandeur by giving greater opportunities to visitors to obtain better views of the Falls and Rapids.

The Commissioners' efforts have been devoted to limiting the expenditure to the smallest amount necessary to afford facilities for seeing and enjoying the great sights by removal of unsightly objects, construction of Hydraulic Lift for use of visitors desiring to go behind the sheet of water, making roads, bridges, paths and approaches to points of interest. A great deal has already been done in that direction, but more remains to be done next spring, for which the Commissioners have made necessary estimates and provision.

From the report of the Hon. Thos. V. Welch, Superintendent of the State Reservation at Niagara, who is the most reliable authority, the Commissioners find that the total number of visitors to the Reservation during the year 1887 was 166,280; this is less than previous year, or the year before. The chief reason for this falling off in numbers is attributed to the action of the Railway Companies in discontinuing car rates for excursion parties.

The important question of revenue has constantly occupied the attention of the Commissioners, and while they see no particular reason for doubting that the number of paying visitors, at the rates in the schedule of Tolls, required to visit the Falls during the year, will be sufficient to pay for the maintenance of the Park and interest on the Bonds. They have, during frequent visits to the Park to examine the progress of works, been strongly impressed that some effort will be needed to draw the attention of the public generally to the estab ishment of the Niagara Falls Park on the Canadian side of the river, freed from annoying importunities and exorbitant charges.

Better acquaintance with the features of the Niagara Falls Park, its extent, especially in length, which is upwards of two and a half miles, and the locality of chief points of view of the Great Falls themselves, which are near the northern boundary of the Park, and of the Rapids with the Islands, forming most attractive views which every visitor will desire to see, lying near the southern boundary of the Park, has impressed the Commissioners with the necessity of making not only some provision for shelter from inclement weather, but also of places for rest and for refreshment, especially to pedestrians.

The Commissioners' former reports contain the recommendation that no places of refreshment should be allowed within the Park.

More intimate knowledge of the configuration and extent of the Park, and the information which during the last two years has been acquired by the Commissioners

that a very large proportion of visitors are pedestrians frequently accompanied by very young persons, caused them to reconsider that recommendation.

The time spent and fatigue incurred in viewing the Cataract and the Rapids convinced the Commissioners that it would add to the comfort and pleasure of visitors, as well as to the popularity of the Park, if in addition to resting places and shelters, refreshments could be supplied.

It was anticipated that Hotels and other places of refreshment would have been established by private enterprise outside the western boundary of the Park, where there is abundance of very suitable ground for such purpose, but thus far no steps appear to have been taken.

The Commissioners intend to give this subject very careful consideration during the coming season, and to submit their views to the Government.

The Commissioners beg leave to submit the following statement of Receipts and Expenditure in connection with the Queen Victoria Niagara Falls Park up to 31st December last, showing a balance of $165,109.65 remaining to the credit of the Commissioners in the Imperial Bank, to be applied in payment of lands not yet taken possession of, and for other purposes provided by the Act.

RECEIPTS.

Amount realized from sale of the Queen Victoria Niagara Falls Park Bonds ($525,000)	$534,667 14
Amount received from sale of sundry properties	1,142 05
Amount received from Tolls charged for visiting under Sheet of Water	1,716 25
Amount received for interest returned by J. T. Bush	662 33
Amount received previous to sale of Bonds (advanced by the Government)	18,929 04
Amount received for Interest allowed by the Imperial Bank to 31st December, 1887	3,375 73
	$560,492 54

EXPENDITURE.

Expenditure on original surveys and maps and on laying out and establishing the boundaries of the Park, including Commissioners' expenses	$3,547 69
Amount paid for land, including costs of arbitrations, legal expenses, and all items chargeable to Land Account	350,979 53
Amount expended on New Works, including cost of management and superintendence	26,045 93
Amount of Interest paid on temporary loan, and costs of advertising and preparing Bonds	4,309 74
Amount paid for Interest on the Bonds for half-year ending 31st December, 1887	10,500 00
Balance in the Imperial Bank, 31st December, 1887	165,109 65
	$560,492 54

All of which is respectfully submitted.

(Signed) C. S. GZOWSKI, Chairman.
" J. W. LANGMUIR.
" J. G. MACDONALD.
" JOHN A. ORCHARD.

Niagara Falls, Ontario,
December 31st, 1887.

The Commissioners of the Queen Victoria Niagara Falls Park:

Gentlemen,—I beg to submit herewith a report on the works accomplished in the Park, under your directions, since my appointment as Superintendent, on the 5th day of May last.

Immediately on receiving instructions from Colonel Gzowski, the Chairman of the Board, I proceeded to the Falls and assumed control of the properties which had at that time been acquired by the Commissioners. As many of these properties were cumbered with unsightly wooden structures, of comparatively little value and useless for the purposes of the Park, they were disposed of by public auction on the 19th of May, and immediately removed. The tidying of the grounds and filling in of cellars, etc., followed, and by the end of June the general appearance of a large portion of the property had been greatly changed and improved.

Fencing in of Grounds.

The boundaries of the Park had been clearly defined by iron monuments planted by Mr. M'Aree, P.L.S., but owing to the conformation of the lands embraced it was considered necessary to enclose the whole by a substantial fence, having openings only where public entrances were required according to the Act. As the boundary is for the greater part along the very steep slope which naturally defines the westerly and southerly limits, the construction of the fence proved difficult and tedious, involving much extra labour in distributing and handling materials. A seven strand barb wire fence, with stout cedar posts, 8 feet apart, was selected as the most efficient and economical. On the north boundary, or along the side of the Clifton House Hill road, a neat iron post and plain wire railing was substituted.

Gates, Etc.

The gates and registering turnstiles, which are to be placed at the several entrances, have been procured, but they have not been put in position. The northern or principal entrance will have an ornamental iron gate, which it is intended to place under a suitable covering of cedar work. The western and southern entrances will have cedar gates of neat design, with rustic coverings to suit.

Bridges.

The bridges connecting with the several Islands received early attention, and a large amount of work was required to place them in a safe and serviceable condition. The two Cedar Island bridges were found to be in a dangerous condition, and had to be almost entirely rebuilt—their proximity to the Falls, and consequently to the destructive influence of the spray, render them peculiarly liable to decay. A new and substantially built Howe truss was made to span the large openings of the bridge nearest Table Rock, the crib work piers were rebuilt where necessary, superstructures renewed, and additional timbers provided, and all exposed wood work thoroughly coated with paint.

The two suspension bridges formerly designated "Castor" and "Pollux," together with the truss bridge near the latter, each received a thorough overhauling—new timbers being provided where required, and all exposed wood and iron work repainted.

The foot suspension bridge, leading from the beautiful walk around the base of "Clark Hill" to the Dufferin Island, and which, it is said, has been in use for a period of over thirty years, was found to be in need of extensive repair—two of the piers had to be entirely renewed, and the other two, which are also used as anchorage piers, were repaired and the concreting made good. The main anchorage at the west end of the bridge, besides being of faulty design, was found to be outside the limits of the Park. A new and suitable abutment was built within the Park grounds and the cables cut and properly secured thereto. As this bridge required stiffening, an additional set of cables and suspenders was put on, adding greatly to the stability of the structure; the whole of the wood and iron work was thoroughly painted.

In addition to these main travelled bridges, there are a number of smaller ones of greater or less extent, but aggregating, with their approaches, a length of 910 feet, which carry the numerous walks through the Dufferin Islands over streams and to rests and points of interest—these were all entirely renewed, and in each case ornamental railings of cedar work provided.

The "Lover's Walk," a promenade extending for a considerable distance around the great bend of Dufferin Islands, and which rests upon crib work designed as a protection against the erosive action of the swift current, and of the ice upon the shore of the Island, required very considerable outlay, but it was absolutely necessary to entirely renew the whole of the work in order to preserve the banks from further damage, and maintain the Island in its integrity. The platform at the Cascade was also found to be in a very decayed condition, and had to be rebuilt. In each case good substantial cedar railings have been erected, and the crib work fully packed with large stones, and carefully planked over.

Roads and Paths.

From the first inception of the Park scheme it has been considered a *sine qua non* that the dusty roadway which extended from the Clifton House Hill to the Museum Garden, should be abandoned, and the quiet contemplation of both the American and Horseshoe Falls, from the many excellent points of sight along the edge of the cliff, made possible to pedestrians without their being endangered by passing vehicles or enveloped in a cloud of dust. This has now been done ; a substantially built roadway, of graceful alignment and easy gradients, has been constructed from the main entrance on the Clifton House Hill, at a point affording convenient access for carriages approaching from either the railway station or the International Suspension Bridge, thence sweeping by an easy curve past the Superintendent's office, and close to the large pond, where a drinking trough will be provided, by an easy and commanding route to a junction with the old road in front of the Museum Garden, where it is also joined by the road leading from the western entrance of the Park. or Murray Street. This roadway has been made 18 feet in width throughout. or fully sufficient for two carriages to pass with ease, and it has a finely gravelled walk of four feet in width on either side, separated from the carriage-way by a narrow margin of sod. The sides and slopes of the paths have also been nicely trimmed and sodded, and both roadway and paths have had efficient drainage provided.

This Avenue is now a marked feature of the Park, and when additional shade trees have been planted and matured, and the turn-outs provided opposite the special points of interest on the edge of the Cliff, the effectiveness of the improvement will be still more apparent.

South of the line of Murray Street, the route of the old roadway along the river bank and through the beautifully wooded Cedar Island, was found to be the most desirable, and has been followed throughout, excepting at a point just south of the second bridge on Cedar Island, where a detour was made to carry the road over a knoll commanding an extensive view of the central part of the Rapids, and also affording visitors one of the most delightful of the many rainbow effects created by the ascending mist.

The old road bed was widened in all cases to a minimum of 18 feet, a heavy coating of gravel applied, and the entire width well-shaped and rolled to an even and hard surface.

In addition to the main roads, the southern entrance to the Park, which will be by the hill at the late Burning Spring, was carefully drained and gravelled, and a strong guard-rail put up along the river side of the slope.

A new turn-out was also made at the top, by which carriages ascending the hill can turn round with ease and proceed along the brow of the hill to the extreme end of the Park, thus affording a grand and comprehensive view of the surroundings of the noble river from above the head of the Rapids.

Gravelled Footways.

A broad and well built walk has been constructed along the edge of the cliff from the northerly boundary to the Table Rock, and from thence, following closely the general

line of the river bank to the Dufferin Islands, a distance of one and three-fifths miles; where the path crosses the bridges connecting the mainland with Cedar Island, separate footways will be constructed so that pedestrians may not be endangered by passing vehicles. This pathway has been carefully rolled to an even surface, and affords a continuous view of the river and of the American shore.

A great deal of labour has also been expended in repairing the many winding pathways which traverse the Dufferin Islands in every direction.

It is generally conceded that a visit to the Falls, which fails to embrace a ramble through the beautiful secluded by-ways and over the many rustic bridges which span the tiny streams dividing this group of islets is very incomplete, and that a very small proportion of the many thousands who come every year to contemplate the sights and enjoy the surroundings of the great Cataract, have as yet known the many attractions of this delightful retreat—renamed in honour of the nobleman who first projected the scheme for reclaiming the district for public benefit.

Drainage.

The swampy parts lying to the north of the Falls have been carefully subdrained, and the numerous springs which flow out at the base of the wooded hill forming the natural boundary of the Park on the west, gathered to the drains in such a manner that the lands may be kept sufficiently dry, for the cultivation of good sodding in place of the rank swamp grass heretofore existing, and yet provide for the free growth of plants which are here indigenous.

No attempt has been made to reclaim the wet lands south of the Falls, but abundant culvert accommodation was provided for the outflow under the roads and walks.

Lift.

It was early decided that the comfort and convenience of visitors wishing to experience the sensations produced by a trip under the "Sheet of Water," required other and better facilities than the toilsome descent and ascent of the circular wooden stairway presently in use. After careful consideration of the requirements, it was decided to erect a powerful hydraulic vertical lift; a suitable location was found, but a short distance from the Falls, where the cliff is nearly vertical instead of overhanging its base by many feet.

The preparation for, and erection of a work of this kind, within the scope of the spray's most potent influence, was an onerous one, which only those who have experienced its paralyzing effects can appreciate. But Mr. Fensom, of Toronto, an experienced builder of every variety of lifts, to whom this work was entrusted, has succeeded in accomplishing the task; all the machinery and appliances are now in good working order.

The Lift is sufficiently large to accommodate eight to ten visitors with their accompanying guides, and occupies but three-fourths of a minute in the upward or downward journey. The car runs in an open wrought iron tower of great strength and stability, designed with special reference to the requirements of the case, all its appointments have been found satisfactory.

The water required to work the Lift is brought in large pipes from the river above the Falls, a distance of some four hundred feet. These pipes are laid in a channel blasted out of the compact limestone rock—a tedious and somewhat expensive work—being entirely within the limits of recurring spray. A small outlay is still required to make this work complete.

Owing to the extraordinary accumulation of ice on all exposed objects in the immediate vicinity of the Falls, it was found necessary to encase the iron tower in which the Lift runs, with tight wooden shutters, having glazed openings for admission of light. These shutters will be removed in summer, affording on three sides an unobstructed view; and visitors will be able to enjoy the unfolding of the magnificent panorama as they gently glide down, in the open cage, to the pathway under the overhanging cliffs, by which they are conducted behind the falling waters.

Buildings.

For the accommodation of some of the employees, three of the buildings situated on the grounds have been preserved and fitted up as dwellings, viz., the enclosed portion of the old wooden "Observatory" which stood on Cedar Island—this will be occupied by one of the gate-keepers, a portion of the old "Street" mansion has been made into a residence for the head-gardener, and the building at the late Burning Spring, near the southern limit of the Park, will be occupied by the gate-keeper at this entrance.

The occupancy of these positions by the officials of the Park will, it is hoped, materially assist in securing good order within its bounds, and prove a check on any who may be mischievously inclined.

The brick cottage, near the principal entrance, has been fitted up for the offices of the superintendent—its location and general arrangements being suitable for this purpose.

The large and substantially built stone structure, owned by Mr. Saul Davis, known as the Museum, has not yet been vacated, but it will be in the hands of the Commissioners before the end of March. It will then be necessary to determine to what use, if any, both it and the stone building known as the Table Rock House, shall be put to, or if the ends the Commissioners have in view can be better secured by removing one or both.

The Table Rock House is so frequently deluged with spray in summer, and surcharged with accumulations of ice in winter, that it is almost impossible to keep it weather proof, and in any case a large annual outlay will be necessary to its preservation. The Museum is further removed from the effects of the spray, and therefore does not require so large an outlay for its maintenance; but it cannot in any wise be described as an ornament to the Park, or in harmony with its surroundings.

The materials in these buildings are of considerable value, and can be advantageously used in many ways, should the demolition of the structures be resolved on by the Commissioners.

Wall at the Burning Spring.

Besides the works generally described above, others of an important character have been carried to completion. The poorly constructed stone retaining wall, protecting the river bank at the end of the bridge, near southern entrance, was undermined, and in danger of falling—it has been taken down, an l a heavy wall of large stone laid in cement substituted.

The steep bank where the Park adjoins the grounds of the Carmelite Monastery required careful consideration; as the outbuildings and premises at some points were endangered by the slipping of soil from under them. A stone retaining wall would have involved a large outlay, besides being of doubtful utility from an engineering point of view, owing to the peculiar nature of the soil. Cribwork piers were therefore built upon a broad base, and connected by a revetment of stout timbers, which will answer every purpose.

The abandoned roadway along the cliff, north of Murray Street, was torn up, all useful stone removed, and the whole space covered over with six inches of good soil, which will be sodded or sown with grass in spring.

Many other works, small in themselves, but essential to the appearance and utility of the Park have been performed, and in each case care has been exercised to secure, as far as possible, works of a permanent character, so that the cost of maintenance in the future may be reduced to a minimum.

As the Prospect House Hotel and Table Rock House properties were not vacated until late in the season, nothing could be accomplished in the way of improving the grounds occupied thereby.

An auction sale of all the wooden structures connected with these properties was held on the 3rd of January, 1888, and most of them have already been removed. The filling up of depressions, and removal of foundation walls and other works necessitated by the change, must, of course, be deferred until spring.

The improvement caused by the removal of so many unsightly and glaring structures from the immediate vicinity of the Falls will be very apparent, and when the grounds

occupied by these buildings have acquired their natural condition, and a few additional trees have been planted, the change will gratify every visitor and enhance the beauty of the scene from every point of view.

Notwithstanding all that has already been accomplished, a considerable outlay will still be required to put the works and grounds in a fair condition for future maintenance. At several points on the mainland, and on Cedar Island, the shores which are exposed to the swift current require protecting by means of cribwork. In some places slides have already occurred, and at others the protection provided by former owners has been carried away and must be replaced, if the shore is to be maintained in its present form.

The turnouts from main driveway have also to be constructed, and connecting paths made to the path along the brink of the cliff.

Platforms and shelters are to be built at the two selected points of view on the cliff, and arbors or shelters at one or two points on the Dufferin Islands. The western entrance roadway requires to be graded and gravelled, and a pathway made to connect with the entrance from Robinson Street.

As already stated, the erection of the shelters at the entrance gates has still to be provided, and conveniences for visitors erected. These items, with the balance due on works already performed, and a reasonable allowance for filling in the cellars of buildings lately sold, will require additional expenditure.

The amount expended on the Works referred to in this Report, to the 31st December last, including cost of superintendence, is $26,045 93. Owing to the dismantling of the bridges in the early part of the season, and the widening and repairing of the various roads later on, the Islands were of necessity closed to the public. I have not opened them since these works were completed, pending instructions from the Commissioners. For the same reason, and also on account of the Lift not being in working order, no steps have been taken towards the collection of revenues required for maintenance of the Park.

The whole respectfully submitted.

I have the honour to be,

Your obedient servant,

(Signed) JAMES WILSON,
Superintendent.

RETURN

To an Address to the Lieutenant-Governor passed by the Legislative Assembly on the 15th day of February, 1888, praying that he will cause to be laid before this House a Return of Copies of all Orders in Council with respect to the investment of Sinking Funds of Municipalities under the provisions of the Municipal Act.

By Command,

ARTHUR S. HARDY,
Secretary.

PROVINCIAL SECRETARY'S OFFICE,
TORONTO, February 24th, 1888.

(Mr. Blyth.)

INVESTMENT OF SINKING FUNDS OF MUNICIPALITIES

COPY of an Order in Council approved by His Honour the Lieutenant-Governor, the 12th October, 1883.

His Honour the Lieutenant-Governor, by and with the advice of the Executive Council for Ontario, under 46 Vic., cap. 18, section 377, hereby directs that any Municipal Council shall be at liberty from time to time to invest any part of the produce of the special rate levied in respect of any debt, and at the credit of the sinking fund account, or of the special rate thereof, which cannot be immediately applied towards paying the debt by reason of no part thereof being then payable, in the debentures of any society or company in the debentures of which trustees may invest trusts funds under the provisions of 42 Vic., cap. 21 (Ontario).

Certified.

J. LONSDALE CAPRÉOL,
Clerk Executive Council,
Ontario.

COPY of an Order in Council approved by His Honour the Lieutenant-Governor, the 4th day of March, A.D. 1885.

Upon consideration of the report of the Honourable the Treasurer, dated 21st February, 1885, and upon the advice of the Executive Council, His Honour the Lieutenant-Governor has been pleased to order, and it is hereby ordered, under the provisions of section 377 of 46 Vic., cap. 18, that where municipalities have amounts at the credit of their sinking fund accounts which cannot immediately be applied towards paying debts by reason of no part thereof being yet payable, they shall be at liberty from time to time to invest the same by special deposit bearing interest in some chartered bank carrying on business in this Province, until the debts mature or more permanent investment can be made.

Certified.

J. LONSDALE CAPRÉOL,
Assistant Clerk Executive Council,
Ontario.

REPORT

Of the Commissioners appointed to revise and consolidate the Public Statutes of the Province of Ontario.

Presented to the Legislative Assembly of Ontario,

By Command,

ARTHUR S. HARDY,
Provincial Secretary.

Provincial Secretary's Office,
Toronto, 24th February, 1888.

PUBLIC STATUTES OF THE PROVINCE OF ONTARIO.

To His Honour the Honourable

SIR ALEXANDER CAMPBELL, K.C.M.G.,

Lieutenant-Governor of Ontario.

The Commissioners appointed to revise and consolidate the Public Statutes of the Province of Ontario, have the honour to report:

Your Honour having under the authority of section 2 of the Act intituled "An Act respecting the Revised Statutes of Ontario, 1887" (50 Vict. c. 2), selected such Acts and parts of Acts passed during the last Session of the Legislature as you deemed advisable to incorporate with the Statutes contained in the printed Roll attested as that of The Public General Statutes, Revised, Classified and Consolidated under the signature of His Honour the Honourable John Beverley Robinson, late Lieutenant-Governor of this Province, and of Charles Gillmor, Esquire, Clerk of the Legislative Assembly, and deposited in the office of the said Clerk of the Legislative Assembly, the Commissioners have adapted their form and language to those of the said Statutes and have inserted them in their proper places in the said Statutes, striking out of the latter any enactments repealed by or inconsistent with those so incorporated, and have altered, as was necessary, the numbers of the chapters and sections; they have also added to Schedule A annexed to the said Statutes a list of the Acts and parts of Acts of the said Session of the Legislature so incorporated as aforesaid. They have also made a few corrections in the language and arrangement of the Draft submitted with their former Report.

Throughout the whole work, as their former Report stated in reference to the Draft Statutes then submitted, the Commissioners have endeavoured to include in one chapter those Acts which pertain to the same subject, to harmonize conflicting enactments, to adopt uniformity of language, to remove redundancies of expression and so present the law in a concise and simple form. In so doing the necessity of deciding numerous questions more or less doubtful have arisen with regard to the effect of subsequent Acts in repealing or amending by implication previous enactments, and though the Commissioners have invariably striven to carry out what they considered was the intention of the Legislature, they feel that they may nevertheless not always have reached the conclusion which would be arrived at by a Court after argument by counsel.

The Commissioners therefore respectfully recommend, inasmuch as it would destroy much of the value of the revision if liberty were given to question its correctness, that during the approaching Session of the Legislature, an Act be passed, confirming the present revision, in similar terms to the Act 41 Vict. c. 6, which confirmed the Revised Statutes of 1877.

GEO. W. BURTON,
Chairman.
C. S. PATTERSON,
J. A. BOYD,
F. OSLER,
JOHN E. ROSE,
JOSEPH E. McDOUGALL,
O. MOWAT,
ALEX. MORRIS,
ARTHUR S. HARDY,
J. G. SCOTT,
JOHN R. CARTWRIGHT,
F. J. JOSEPH.

Toronto, February, 1888.

(No. 47).

Return from the Queen's Printer as to the disposal of the Sessional Statutes for the year 1887. (*Not printed.*)

(No. 48).

Return from the Queen's Printer as to the disposal of the Revised Statutes for the year 1887. (*Not printed.*)

CORRESPONDENCE, ETC.

Relative to the Accounts between the Provinces of Ontario and Quebec and the Dominion of Canada.

Presented to the Legislative Assembly of Ontario,

By Command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, 27th February, 1888.

CORRESPONDENCE, ETC.

RELATIVE TO THE ACCOUNTS BETWEEN THE PROVINCES OF ONTARIO AND QUEBEC AND THE DOMINION OF CANADA.

OTTAWA, 12th August, 1887.

Hon. A. M. Ross,
Provincial Treasurer,
Toronto.

DEAR SIR,—Mr. Courtney, when leaving for England, instructed me to re-cast the Province accounts in accordance with your wishes as expressed when I had the pleasure of seeing you. As I understood you then, you wished that all transactions prior to 1873 should be eliminated from the accounts submitted, as you considered the Act of 1884 had that effect. Taking this view of the case, I have prepared the enclosed statements of the accounts of the Provinces of Canada and of Ontario to 30th June, 1885, and would be glad to know if they agree with your calculations.

Respecting the interest on the Upper Canada Building Fund, will you be good enough to name the Act that fixes the rate of interest at 6 per cent. in order that it may be looked into. The only authority I know anything of is the resolution of the Public Accounts Committee.

If there are any other points to be adjusted that I can do anything to straighten out, kindly inform me at your early convenience.

I remain,

Yours respectfully,

(Signed) M. G. DICKIESON,
Accountant.

PROVINCE OF CANADA.

	Principal.		Interest.	
	$ c.	$ c.	$ c.	$ c.
Dr.			*Dr.*	
Page 24		11,318,045 46	Page 24	9,579,152 45
Deduct—			*Deduct*—	
Page 20	1,583,556 44		Page 20	2,150,758 65
" 24	9,652,392 60		" 24	7,403,589 84
		11,235,949 04		9,554,348 49
		82,096 42		24,803 96
Cr.			*Cr.*	
Page 24		11,318,045 46	Page 24	9,579,152 45
Deduct—			*Deduct*—	
Page 21		11,311,781 70	Page 21	9,576,387 34
		6,263 76		2,765 11
Brought down—			*Brought down*—	
Dr		82,096 42	Dr	24,803 96
Cr		6,263 76	Cr	2,765 11
		75,832 66		22,038 85
Chargeable to Ontario		40,017 27		11,630 02
" Quebec		35,815 39		10,408 83

Total chargeable to Ontario	$51,647 29
" " Quebec	46,224 22
	$97,871 51

PROVINCE OF ONTARIO.

	Principal.		Interest.	
	$ c.	$ c.	$ c.	$ c.
Dr.			*Dr.*	
Page 36		31,131,188 94	Page 36	19,036,232 02
Less—			*Less*—	
Page 26	2,873,089 42		Page 26	4,115,802 06
" 36	4,128,246 69		" 36	47,030 26
		7,001,336 11		4,162,832 32
Add Transfer from		24,129,852 83	Add Transfer from	14,863,399 70
Canada		40,017 27	Canada	11,630 02
		24,169,870 10		14,875,029 72
Cr.			*Cr.*	
Page 36		31,131,188 94	Page 36	19,026,232 02
Add page 27		2,264,006 62	Add page 27	3,243,266 92
		33,395,195 56		22,269,498 94
Less—			*Less*—	
Page 37	2,848,289 52		Page 37	144,208 50
" "	5,093,616 08		" "	3,906,911 56
		7,941,905 60		4,051,120 06
		25,453,289 96		18,218,378 88
Cr. Balance		1,283,419 86		3,343,349 08

Total Cr. Balance	$4,626,768 94
" " " printed	4,175,276 95
Difference	$451,491 99

TORONTO, 20th August, 1887.

M. G. DICKIESON, Esq.,
Accountant Finance Department,
Ottawa.

DEAR SIR,—I beg to acknowledge the receipt of your favor of the 12th inst., enclosing statements of the Province of Canada and Ontario accounts, made up upon the basis of a final and full settlement of the Province of Canada Debt, both Principal and Interest, up to 30th June, 1872, having been effected by the Acts of 1873 and 1884.

The statement is correct in principle and mode of calculation. With regard to the claim of six per cent. interest instead of five on Upper Canada Building Fund. By the Seignorial Acts of 1884 and 1885, certain local revenues of Quebec were set apart and capitalized at six per cent. to form a Fund for the making good to the Consolidated Fund the sums charged against it under the Act. The balance of the moneys required for the settlement of the Seignorial claims was to be taken from the Consolidated Fund; Upper Canada (Ontario) was to receive an equivalent for the excess over these local revenues so taken from the Consolidated Fund.

The $600,000 was set apart for that equivalent, and should at once have been credited in account to Upper Canada and dealt with in allowance of interest in the same manner as credits to the Seignorial accounts.

The latter part of Section 3, Act of 1855, expressly provides that the rate of interest paid by the Receiver General on the Seignorial accounts is to be taken into account in ascertaining the sum which Upper Canada was to receive as an equivalent. These, I believe, were always allowed six per cent. This matter was brought before the Public Accounts Committee of the Dominion Parliament in 1870, and that Committee reported that the same rate of interest should be allowed on this $600,000 as was done in respect of the equivalent sums set apart under the Seignorial Acts.

I need not go into any arguments on this point at present, as I think there can be very little doubt that we are clearly entitled to the six per cent. upon these sums.

I am, dear Sir,
Yours truly,

A. M. ROSS,
Provincial Treasurer.

FINANCE DEPARTMENT,
OTTAWA, 25th August, 1887.

Hon. A. M. Ross,
Provincial Treasurer,
Toronto.

DEAR SIR,—Yours of the 20th inst., in reference to the Province Accounts, is to hand. In reference to the rate of interest on the U. C. Building Fund, I would like to have the figures ready for the contemplated meeting next month. Should it finally be determined to compute the interest at 6 per cent. instead of 5 per cent. per annum, the amount to be credited to Ontario, as I calculate it, would be :—

Amount of $774,577.70 at 6 per cent per annum compounded half-yearly from 4th May, 1859, to 30th June, 1867	$1,254,619 05
Less amount included in the Public Accounts	1,153,339 50
Amount chargeable to Province of Canada (as for 1867)	101,279 55
" of an annuity of $8,805.08 for 36 payments from 1867 to 1885 (compound)	557,148 15
Total	$658,427 70

THE ONTARIO GOVERNMENT,

Dr. TO THE DOMINION GOVERNMENT

For the following amounts paid to the Widows of Clergymen entitled to receive pensions :—

1887.		$ c.
July 9.....	To paid Mrs. Cronyn.....	121 66
" 20.....	" " Harper.....	121 66
Aug. 4.....	" " Blake.....	121 66
" 4.....	" " Anderson.....	121 66
" 4.....	" " Burnham.....	121 66
" 4.....	" " Boswell.....	121 66
" 4.....	" " Sampson.....	121 66
" 4.....	" " Grier.....	121 66
" 4.....	" " Short.....	121 66
		$1,094 94
	Amount of account rendered to 30th June still unpaid.....	6,357 24
	Total.....	$7,452 18

FINANCE DEPARTMENT,
OTTAWA, 10th January, 1888.

TORONTO, 17th January, 1888.

J. M. COURTNEY, Esq.,
Deputy Finance Minister,
Ottawa.

DEAR SIR,—Preparatory to our next meeting for the settlement of accounts between the Dominion and the Provinces, I would like to get some further information into the past history of the Upper Canada Building Fund, or at least that portion of it which Upper Canada was to receive as a set-off to the grants to the Seignorial Funds, and upon which Ontario claims to be allowed six per cent. interest.

By Canada Sessional Papers, 1870, I see that an address was passed by the House of Commons on 4th of April of that year, for a return "for copies of all Minutes in "Council and Departmental Orders, and of all correspondence between the Minister of "Finance and the Treasurers of Ontario and Quebec respectively, relating to the rate of "interest allowed since 4th May, 1859, on the capital of the Seignors, and the capital of "compensation to the townships in Lower Canada, and also on the compensation to "Upper Canada arising out of the Seignorial legislation, called the Upper Canada "Building Fund."

This return does not appear to have been printed. (See No. 73 of 1870, marked "not printed.") Could you kindly have a copy of said return made for me, and transmitted as early as possible? The cost of making the same we will pay.

I am, dear Sir,
yours truly,

A. M. ROSS,
Provincial Treasurer

QUEBEC, 19th January, 1888.

The Honourable
THE TREASURER OF THE PROVINCE OF ONTARIO,
Toronto.

SIR,—As the Honourable the Treasurer is preparing his statement of the Common School Fund, he desires me to ask you to be good enough to furnish him at once with the statement of the receipts during the year 1887, from sales of land belonging to this fund, distinguishing the amounts collected from the sales subject to the Land Improvement Fund, together with a statement of the balance uncollected on sales of these lands with the same division as above mentioned, and a statement of the lands remaining unsold.

I have the honour to be,
Sir,
Your obedient servant,

H. T. MACHIN,
Assistant Treasurer, P. Q.

QEEBEC, 25th January, 1888.

The Honourable A. M. Ross,
Treasurer of the Province of Ontario,
Toronto.

MY DEAR SIR,—Would you kindly send me a statement of the questions to be submitted in the proposed arbitration between the Provinces of Ontario and Quebec which, I understood from a letter of the Honourable the Prime Minister of Ontario of the 25th Novembelast, were in course of preparation. With this statement, and the statements respecting the School Lands asked for in the letter of the Assistant Treasurer of the 19th instant, I shall be in a position, I hope very shortly, to submit our case to the arbitrators.

I remain,
My dear Sir,
Yours very truly,

JOSEPH SHEHYN,
Treasurer, P. Q.

OTTAWA, 27th January, 1888.

MY DEAR SIR,—Referring to your letter of the 17th inst., asking for a copy of the return No. 53 of 1870, about the Upper Canada Building Fund, I merely write to say that the matter is in hand, and the information will be sent forward in a few days.

Yours truly,

J. M. COURTNEY,
Deputy Finance Minister.

Hon. A. M. Ross,
Provincial Treasurer,
Toronto.

Toronto, 3rd February, 1888.

Hon. Joseph Shehyn, M.P.P.,
Provincial Treasurer,
Quebec.

Dear Sir,—Your favour of 19th and 25th ult., duly received.

I enclose you herewith statements received from the Crown Lands Department, giving the collections from the Common School Fund, and statement of lands unsold, together with an approximate statement of the amounts still due on lands already sold. This statement is but approximate, as you will see from the copy of letter from the Crown Lands Department which I enclose that the preparation of an accurate statement would involve several months of labour.

A separate account is made of every lot, and the calculations would need to be made in each case before an occurate amount of the total could be arrived at.

In regard to the questions to be submitted to the proposed arbitration, Mr. Mowat informs me that the case is in preparation and nearly complete; when it is, a copy of it will be sent to Mr. Mercier for his approval.

I am, dear Sir,
Yours truly,

A. M. ROSS,
Provincial Treasurer.

Toronto, 3rd February, 1888.

Sir,—In reply to the letter of the Assistant Treasurer of the Province of Quebec, I enclose statement of the receipts during the year 1887, from sales of School Lands, distinguishing the amount collected from the sales subject to the Land Improvement Fund, together with a statement of the number of acres remaining unsold. I also enclose an approximate statement of the balance uncollected on sales of these lands with the division as above. I may state that a correct statement of the amount due on School Lands with the necessary distinction as asked for, could not be furnished within six months from date of notice, owing to the fact that several thousand calculations will be required to arrive at the figures accurately.

Your obedient servant,

AUBREY WHITE,
Assistant Commissioner.

The Honourable
The Treasurer of Ontario.

Approximate Statement of Amounts Due on Common School Lands, to 31st December, 1887.

Lands sold subject to the Land Improvement Fund—	
Principal	$104,454 54
Interest	133,400 00
Total	$237,854 54

Lands sold not subject to the Lands Improvement Fund—	
Principal	$20,912 43
Interest	21,600 00
Total	$42,512 43
Total amount due on Common School Lands, to 31st December, 1887	$280,366 97

AUBREY WHITE,
Asst. Commissioner of Crown Lands.

Department of Crown Lands,
Toronto, 31st December, 1887.

Statement of Receipts during the Year 1887, from Common School Lands.

Amount collected from sales subject to the Land Improvement Fund	$12,085 86
Amount collected from other sales not subject	5,404 07
Total collections from sales of school lands	$17,489 93

There are 781 acres of school lands remaining unsold in the Province of Ontario.

AUBREY WHITE,
Asst. Commissioner of Crown Lands.

D. Geo. Ross,
Accountant.

Department of Crown Lands,
28th January, 1888.

STATEMENT

Of Bursar of Upper Canada College, for the year ending 30th June, 1887.

Presented to the Legislative Assembly.

By command,

ARTHUR S. HARDY.

Secretary

Provincial Secretary's Office,
Toronto, 28th February, 1888.

No. 1.

UPPER CANADA COLLEGE.

THE BURSAR'S STATEMENT shewing the nature of Investments constituting the Permanent Fund and the Income derivable therefrom as at 30th June, 1887.

	Investments.	Income.
	$ c.	$ c.
Municipal debentures .....$46720 02 @ 5 per cent.		
" " ..... 56473 75 @ 6 per cent.		
	103193 77	5724 42
First mortgages on real estate	152121 92	9763 71
Balance due on sales of land	3428 77	205 70
Rents, including $400 rent of Bursar's office	.....	480 00
	258744 46	16173 83

N. B.—In above investments are included all credit balances and overdraft on bank account of $8579.19.

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

No. 2.

UPPER CANADA COLLEGE.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Capital Account for year ending 30th June, 1887.

Receipts.	—	Disbursements.	—
	$ c.		$ c.
Debentures redeemed:—		Balance 30th June, 1886.....	11482 93
Omemee $2100 00		Invested in loans	26984 32
Sandwich, E..... 435 00			
Tilbury, W. 258 75			
$2793 75			
Waterloo 4000 00			
Nottawasaga 739 00			
Less returned wrongly credited by bank... 188 00			
551 00			
	7344 75		
Purchase money	810 41		
Loans repaid	7548 50		
Balance 30th June, 1887.....	22763 59		
	38467 25		38467 25

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursa

No. 3.

UPPER CANADA COLLEGE.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Income Account for year ending 30th June, 1887.

RECEIPTS.	$ c.	DISBURSEMENTS.	$ c.
Interest on purchase money	272 12	Balance on 30th June, 1886	528 72
" loans	8015 63	Commission on loans	286 25
" debentures	6244 80	Amount appropriated for expenditure for year ending 30th June, 1887	10799 99
Rents	451 20	Interest on bank account overdrawn	271 68
		Balance 30th June, 1887	3097 11
	14983 75		14983 75

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

No. 4.

UPPER CANADA COLLEGE.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Income Appropriation Account for year ending 30th June, 1887.

RECEIPTS.	$ c.	DISBURSEMENTS.	$ c.	$ c.
Balance 30th June, 1886	5445 21	Bursar's Office, share of expenses		966 35
Tuition fees	11986 10	Pensions—Dr. Barrett, 8 months		533 32
Transfer fees	9 50	Insurances		29 50
Amount appropriated for expenditure for year ending 30th June, 1887	10799 99	Salaries:—		
		Geo. Dickson, M.A., Principal	$2600 00	
		W. Wedd, M.A., 1st Classical master	1316 00	
		J. Brown, 1st Mathematical master	1650 00	
		J. Martland, 2nd Classical master	1300 00	
		W. S. Jackson, assistant Classical master	1100 00	
		H. Brock, assistant English master	750 00	
		A. Stevenson, Writing and Com. master	750 00	
		G. B. Sparling, 2nd Mathematical master	1200 00	
		G. Gordon, assistant English master	691 67	
		W. H. Fraser, French and German master	1350 00	
		A. Y. Scott, assistant English and lecturer on Chemistry	750 00	
		J. Blackstock, assistant Modern Language master	700 00	
		C. W. Gordon, temporary master	400 00	
		A. H. Young, assistant master	55 00	
		J. C. Burns, temporary master	47 00	
		D. B. Dick, Architect	125 00	
		Sergt. T. Parr, Gymnastic Instructor	200 00	
		George Frost, janitor	420 00	
				15404 67
Carried forward	28240 80	*Carried forward*		16933 84

No 4.—*Continued.*

Receipts and Disbursements on Income Appropriation Account.—*Continued.*

Receipts.	—	Disbursements.	—
	$ c.		$ c.
Brought forward....	28240 80	*Brought forward*.....	16933 84
		Insurance loans.....	8 38
		Exhibitions	240 00
		Prizes	152 50
		Stationery.....	729 65
		Outfit	37 33
		Law costs	18 90
		Advertising	154 15
		Grounds	472 97
		Fuel	857 11
		Repairs	2926 03
		Incidentals.....	324 32
		Examiners	60 00
		Special allowance to Principal as rent until he obtained possession of his house	150 00
		Balance 30th June, 1887.....	5175 62
Total	28240 80	Total	28240 80

Bursar's Office,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

No. 5.

UPPER CANADA COLLEGE.

The Bursar's Statement of Receipts and Disbursements on Residence Account for year ending 30th June, 1887.

Receipts.	—	Disbursements.		—
	$ c.			$ c.
Balance 30th June, 1886...	3264 54	Salaries:—		
Board dues.....	25097 45	Geo. Dickson, superintend'g boys in his house	$33 00	
		G. B. Sparling, assistant master.....	340 00	
		J. Martland, resident superintendent.....	1000 00	
		W. S. Jackson, superintending houses 1 and 2	438 00	
		G. Gordon, assistant master.....	240 00	
		A. Stevenson, temporary assistant.....	50 00	
		H. Brock, superintending houses 3 and 4....	305 00	
		A. Y. Scott, assistant master	300 00	
		Dr. Barrett, medical attendant	25 00	
		Dr. Temple, acting medical attendant	36 00	
		Sergt. T. Parr, Sergt. of play grounds.....	200 00	
		Mrs. Sewell, matron	305 00	
				3272 00
		Pew rents		475 66
		Outfit		930 12
		Repairs		741 05
		Steward's department.....		16284 22
		Gymnasium		994 66
		Gas and water		48 63
		Incidentals.....		15 00
		Balance 30th June, 1887.....		5600 65
Total	28361 99	Total		28361 99

Bursar's Office,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

No. 6.

UPPER CANADA COLLEGE.

THE BURSAR'S STATEMENT of Cash Balances as at 30th June 1887.

	DR.	CR
	$ c.	$ c.
Cash		55 92
Bank of Commerce (overdrawn)		8579 19
Capital	22763 59	
Income		3097 11
Appropriation		5175 62
Residence		5600 65
Deposits		255 10
Total	$22763 59	$22763 59

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

RETURN

To an Order of the Legislative Assembly, dated 8th February, 1888, showing the number of persons committed to gaol in each county in the Province, under Division Court process, during the year 1887; the number who remained in gaol for a period exceeding one month, together with the number of those against whom the judgment recovered was for an amount less than ten dollars.

By Command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, 28th February, 1888.

(*Mr. Harcourt.*)

RETURN

To an Order of the Legislative Assembly, dated 8th February, 1888, showing the number of persons committed to gaol in each county in the Province, under Division Court process, during the year 1887; the number who remained in gaol for a period exceeding one month, together with the number of those against whom the judgment recovered was for an amount less than ten dollars.

COUNTY.	Number committed to gaol under Division Court process during the year 1887.	Number committed who remained in gaol for a period exceeding one month.	Number against whom the judgment recovered was for an amount less than $10.
Algoma (District)			
Brant	1	1	
Bruce	1		
Carleton	10		
Dufferin			
Elgin	3	1	
Essex	3		1
Frontenac			
Grey	8		
Haldimand			
Haliburton			
Halton	3		
Hastings	1		
Huron	3		
Kent	1		
Lambton	2		
Lanark	1		
Leeds and Grenville	3		
Lennox and Addington	3		
Lincoln			
Middlesex	12		
Muskoka (District)			
Nipissing (District)			
Norfolk	4		

Return to an Order of the Legislative Assembly, dated 8th February, 1888, showing the number of persons committed to gaol in each county in the Province, under Division Court process, during the year 1887, etc.—*Continued.*

COUNTY.	Number committed to gaol under Division Court process during the year 1887.	Number committed who remained n gaol for a period exceeding one month.	Number against whom the judgment recovered was for an amount less than $10.
Northumberland and Durham	2		
Ontario			
Oxford	8		
Parry Sound (District)			
Peel			
Perth	8		
Peterborough	1		
Prescott and Russell	2		
Prince Edward			
Rainy River (District)	1		
Renfrew	4	2	
Simcoe	9		
Stormont, Dundas and Glengarry	3		
Thunder Bay (District)			
Victoria			
Waterloo			
Welland	2		1
Wellington			
Wentworth	3		1
York	16		2
Total	118	4	5

J. DICKEY,
Inspector of Division Courts.

(No. 52).

Return shewing the various sums expended in the last five years for Colonization Road purposes; the counties and districts in which the money was spent; the amount expended in each county and district respectively. Also, the amount, if any, spent for similar purposes, since Confederation, in the Counties of Prescott, Russell, Glengarry, Stormont and Dundas. (*Not printed.*)

(No. 53).

Return of copies of all correspondence with reference to the claim of Mr. F. B Wilkins to be placed on the list of superannuated teachers. (*Not printed.*)

RETURN

To an Order passed by the Legislative Assembly on the 23rd day of March, 1887, for a Return shewing the number of convictions returned to the Clerks of the Peace of the several counties in the Province during the year 1885; the number of such convictions severally made by Police Magistrates, Reeves acting as Justices of the Peace *ex officio*, and duly qualified Justices of the Peace; also, shewing the number in each county of qualified Justices of the Peace receiving copies of the Statutes of Ontario for the same year.

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, March 1st, 1888.

Mr. Clarke (Wellington).

RETURN

To an Order of the Legislative Assembly passed on the 23rd March, 1887, shewing the number of convictions returned to the Clerks of the Peace of the several counties for 1885; the number of the same severally made by Police Magistrates, Reeves and Justices of the Peace; also, the number of Justices of the Peace in each county who received copies of the Ontario Statutes for 1885.

Abstract of Returns Received from the Clerks of the Peace of the Several Counties, etc., Named.	Total number of convictions for 1885.	By Police Magistrates.	By Reeves, Mayors, as Justices of the Peace.	By Justices of the Peace.	Number of Justices who received Ontario Statutes for 1885.
Algoma District	....	No	Return.	.....	.....
Brant	408	251	None.	157	170
Bruce	236	None.	18	218	157
Carleton	1,003	965	None.	38	107
Dufferin	71	17	None.	54	75
Elgin	381	343	None.	38	125
Essex	485	300	16	169	59
Frontenac	508	442	5	61	135
Grey	336	173	34	129	185
Haldimand	107	None.	5	102	85
Halton	109	21	10	78	123
Hastings	319	259	2	58	167
Huron	284	None.	None.	284	184
Kent	500	348	11	141	127
Lambton	511	None.	369	142	150
Lanark	181	5	59	117	62
Leeds and Grenville	554	418	13	123	194
Lennox and Addington	198	None.	92	106	179
Lincoln	90	30	24	36	95
Middlesex	807	559	8	240	192
Norfolk	139	55	None.	84	129
Northumberland and Durham	466	301	14	151	285
Ontario	168	60	17	91	80

Return to an Order passed by the Legislative Assembly on the 23rd March, 1887, for a Return shewing the number of convictions returned to the Clerks of the Peace of the several counties in the Province during the year 1885, etc.—*Continued.*

Abstract of Returns Received from the Clerks of the Peace of the Several Counties, etc., Named.	Total number of convictions for 1885.	By Police Magistrates.	By Reeves, Mayors, as Justices of the Peace.	By Justices of the Peace.	Number of Justices who received Ontario Statutes for 1885.
Oxford	380	320	None.	60	246
Peel	66	None.	18	48	157
Perth	371	250	5	116	64
Peterborough	248	208	None.	40	75
Prescott and Russell	111	39	None.	72	42
Prince Edward	90	75	None.	15	124
Rainy River District	.....	No	Return.	.....	.....
Renfrew	168	119	3	46	51
Simcoe	549	None.	84	465	156
Stormont, Dundas and Glengarry	110	None.	11	99	235
Thunder Bay	1,100	209	None.	891	None.
Victoria	254	160	.....	94	118
Waterloo	231	None.	56	175	81
Welland	290	246	None.	44	94
Wellington	254	130	43	81	225
Wentworth	438	295	14	129	118
York	266	None.	24	242	256
	12,787	6,798	955	5,234	5,107

RETURN

To an Address of the Legislative Assembly to His Honour the Lieutenant-Governor, passed on the 7th day of February, 1888, praying that he will cause to be laid before this House a Return of all Commissions of Inquiry issued during the years 1886 and 1887. The subject of the inquiry in each case, the names of the Commissioners, their salary or other remuneration, and a statement of the expenses of each such inquiry. Such Returns to show whether the Commissioners or any of them held any, and if so what other office or employment in the public service of the Province.

By Command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, March 2nd, 1888.

(*Mr. Meredith.*)

RETURN to an Address passed by the Legislative Assembly on the 7th February, 1888 of all Commissions of Inquiry issued in 1886 and 1887; the subject of inquiry, names of Commissioners, salary or remuneration, expense of each inquiry, and whether the Commissioners held any, and what other employment in the public service.

NAMES OF COMMISSIONERS.	SUBJECTS OF INQUIRY.	Fees to Commissioners.	Expenses of Inquiry.	OFFICE IN THE PUBLIC SERVICE.	REMARKS.
		$ c.	$ c.		
E. F. B. Johnston	Charges against J. R. Armstrong, J. P., Algoma, 13th June, 1886	No fees paid	51 00	Deputy Attorney-General.	
Æmilius Irving, Q.C	Charges against Arthur Starkey, Registrar of Deeds, Parry Sound, 8th October, 1886.	210 00	50 00		
Matthew Strickney Gray	Dynamite outrages, Orangeville, 13th July, 1887				Inquiry not concluded.
Æmilius Irving, Q.C	Charges against the Ontario Grain and Seed Company, 15th July, 1887		250 00		Inquiry not concluded.
Æmilius Irving, Q.C	Charges against John W. Nesbitt, J.P. for County Oxford, 28th July, 1887	25 00	75		
Æmilius Irving, Q.C	Charges against Alexander McKenzie, J.P., Parry Sound, 22nd August, 1887	120 00	45 00		
John Logan	Financial affairs, Township of Culross, 22nd August, 1887				Commission revoked; new commission issued appointing W. F. Munro.
Æmilius Irving, Q.C	Charges against George Spencer, Police Magistrate, Owen Sound, 6th Oct., 1887	160 00	35 00		
Æmilius Irving, Q.C	Charges against John Gage and Joseph Roberts, Co. Lambton, 6th October, 1887.	60 00	54 00		
William Ferguson Munro	Financial affairs of the Township of Culross, 11th October, 1887				Expense payable by municipality.
Æmilius Irving, Q.C., and John Winchester	Charges against A. W. Thompson, Police Magistrate, Port Arthur, 14th Oct., 1887.	160 00	204 25	Mr. Winchester is Inspector of Legal Offices.	Mr. Winchester received no remuneration. His expenses ($80.25) were paid out of the appropriation, "Travelling Expenses, Inspector Legal Offices."

Æmilius Irving, Q.C.	Charges against C. E. Chadwick, Police Magistrate, Ingersoll, 12th Nov., 1887 ...	.....	.....	.....	Inquiry not concluded.
John Winchester.....	Charges against John T. Partridge, Police Magistrate, Co. Simcoe, 12th Nov., 1887..	No fees paid	12 10	Inspector Legal Offices....	Paid out of appropriation "Travelling Expenses, Inspector Legal Offices."
Æmilius Irving, Q.C.....	Charges against Authony Buschlen and Maurice Halley, J.P.'s, Co. Wellington, 18th November, 1887.....	120 00	19 60		
Æmilius Irving, Q.C.....	*Re* Ferry between Sophiasburgh and Tyendinaga (Green Point)	100 00	31 50		
R. E. Wood	Charges against James Goulborne, J. P., Co. Peterboro'.....	15 50	.....		

STATEMENT

Shewing (1) Circular sent to the employes of the Grand Trunk Rail way Company within Ontario, pursuant to recommendation of the Select Committee appointed to enquire into the operations of "The Workmen's Compensation for Injuries Act, etc."

(2) Form of questions to which replies from said employes were requested.

(3) Analysis, etc., of the replies received.

Presented to the Legislature by command of His Honour the Lieutenant-Governor.

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, March 5th, 1888.

RE EMPLOYERS' LIABILITY ACT.

(Circular.)

DEPARTMENT OF PUBLIC WORKS, ONTARIO,
TORONTO, 13th September, 1887.

SIR,—The Legislative Assembly of Ontario, at its last Session, appointed a special select Committee to enquire into the operation of the "Workmen's Compensation for Injuries Act, 1886," and especially as to the operation and effect of section seventeen of the said Act.

The Committee in its report recommended, amongst other things, that, before the next Session of the Provincial Legislature, such steps should be taken by the Provincial Government as would result in obtaining from the members of the Grand Trunk Insurance and Provident Society, resident within this Province, confidential replies to the questions which are set forth in the printed form accompanying this circular.

I am, therefore, directed by the Honourable the Commissioner of Public Works to request that you will (enclosed in the envelope sent you herewith) immediately return to me by mail the above-mentioned printed form with such replies as you may make to the questions asked and with your signature and post office address appended at the foot thereof.

I am also directed by the Honourable the Commissioner to say that you can confidently rely that your answers will be considered as confidentially given, and that you will not be known to have either made or sent them by any one (other than yourself) connected with the Grand Trunk Railway Company.

That you may be able to refer to the provisions of the Act above referred to, a copy thereof, as the same is now amended, is also sent you herewith.

Yours, etc.,

WM. EDWARDS,
Secretary Public Works Department.

FORM, ETC., OF QUESTIONS.

(Private and Confidential.)

The undersigned, who is resident within the Province of Ontario, and in the employment of the Grand Trunk Railway Company, makes to the questions set forth hereunder the answers written opposite thereto.

1. Are you in the employment of the Grand Trunk Railway Company?
2. How long have you been so?
3. What is the nature of your employment?
4. Are you a member of the Grand Trunk Railway Insurance and Provident Society?
5. Are you acquainted with the provisions of "The Workmen's Compensation for Injuries Act, 1886, as amended by the Act of 1887?

6. Do you believe or wish that such of the provisions of the above-named Acts as exempt the Grand Trunk Railway Company from liability in respect of personal injuries to members of the said Insurance and Provident Society should be continued?

7. Are you in favour of the continuance of the said Insurance and Provident Society.

8. Would, in your opinion, the said Insurance and Provident Society continue to exist and be operated if the Grand Trunk Railway was not, in any way, exempt from liability under said Acts in respect of injuries to members of the Society?

9. Would you prefer to have the full protection of the provisions of the above-mentioned Acts, without any exemption on the part of the Grand Trunk Railway Company rather than your membership in the said Society?

10. Do you approve of being *compelled* to join the Grand Trunk Insurance and Provident Society?

11. Is your life insured in any other society, and if so, for how much?

12. Do you belong to any other Provident Society from which you receive sick or accident benefits?

13. If not, and the Grand Trunk Insurance and Provident Society is abolished, would you connect yourself with any other Insurance or Provident Society?

14. Would you be in favour of maintaining the Grand Trunk Insurance and Provident Society even if the Company withdrew its annual grant?

15. Have you ever received medical attendance from the Grand Trunk Provident Society?

16. If so, was the medical attendance satisfactory?

17. Are you satisfied with the present system of management of the Grand Trunk Insurance and Provident Society, and if not, in what respect is it in your opinion unsatisfactory?

(*Signature of person making answers*)
(*Post office address*)

Statement showing briefly the nature, etc., of the answers returned by members of the Grand Trunk Insurance and Provident Society to the questions set forth in the printed form mentioned in the foregoing circular.

(1) The questions were answered by two thousand nine hundred and seventy-nine (2,979) of the employés of the Grand Trunk Railway Company resident in Ontario.

(2) *Of these employés—*

103	were	Conductors.
181	"	Enginemen.
184	"	Brakemen.
151	"	Firemen.
776	"	Switch or trackmen.
586	"	Mechanics.
80	"	Station agents.
888	"	Office, station and yardmen.
30	Did not give the nature of their employment.	
2,979		

Note.—Questions 1 and 4 were answered in the affirmative, and question No. 3 by stating their respective employments.

(3) *To the question No. 5—*

"Are you acquainted with the provisions of "The Workmen's Compensation for Injuries Act, 1886, as amended by the Act of 1887?"

2,274 answered "Yes."
103 " Partially or slightly.
446 " "No."
156 did not answer this question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	Partially.	"No."
Conductors	88	3	8
Enginemen	154	9	13
Brakemen	147	6	29
Firemen	132	5	11
Switch or trackmen	516	26	186
Mechanics	459	21	80
Station agents	69	5	3
Office, station and yardmen	709	28	116
Totals	2,274	103	446

(4) *To the question No. 6—*

"Do you believe or wish that such of the provisions of the above-mentioned Acts as exempt the Grand Trunk Railway Company from liability in respect of personal injuries to members of the said Insurance and Provident Society should be continued?"

1,034 answered "Yes."
1,590 " "No."
355 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	28	67
Enginemen	48	120
Brakemen	17	162
Firemen	22	119
Switch or trackmen	313	346
Mechanics	180	350
Station agents	39	34
Office, station and yardmen	387	392
Totals	1,034	1,590

(5) *To the question No. 7—*

"Are you in favour of the continuance of the said Insurance and Provident Society?"

1,660 answered "Yes"
1,289 " "No."
30 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	56	48
Enginemen	81	100
Brakemen	27	151
Firemen	32	117
Switch or trackmen	475	299
Mechanics	312	275
Station agents	66	17
Office, station and yardmen	611	282
Totals	1,660	1,289

(6) *To the question No. 8—*

"Would, in your opinion, the said Insurance and Provident Society continue to exist and be operated if the Grand Trunk Railway was not, in any way, exempt from liability under said Acts in respect of injuries to members of the Society?"

850 answered "Yes."
1,448 " "No."
681 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	42	47
Enginemen	50	89
Brakemen	34	116
Firemen	38	100
Switch or trackmen	242	351
Mechanics	167	287
Station agents	16	53
Office, station and yardmen	261	405
Totals	850	1,448

(7) *To the question No. 9—*

"Would you prefer to have the full protection of the provisions of the above-mentioned Acts, without any exemption on the part of Grand Trunk Railway Company rather than your membership in the said Society?"

1,407 answered "Yes."
1,176 " "No."
396 did not answer this question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No.
Conductors	56	38
Enginemen	113	51
Brakemen	150	26
Firemen	109	29
Switch or trackmen	313	338
Mechanics	322	200
Station agents	26	47
Office, station and yardmen	318	447
Totals	1,407	1,176

(8) *To the question No. 10—*

"Do you approve of being *compelled* to join the Grand Trunk Insurance and Provident Society?"

802 answered "Yes."
2,057 " "No."
120 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	26	71
Enginemen	35	154
Brakemen	10	167
Firemen	10	134
Switch and trackmen	224	532
Mechanics	146	413
Station agents	31	49
Office, station and yardmen	320	537
Totals	802	2,057

(9) *To the question No. 11—*

"Is your life insured in any other society, and if so, for how much?"

851 answered "Yes."
1,844 " "No."
284 did not answer the question.

2,979

The answers to this question, with amounts of insurance by classes, were as follows:—

	"Yes."	Covering insurance of	Average ins. per man.	"No."
Conductors	47	$111,000	$2,380	42
Enginemen	117	271,400	2,320	50
Brakemen	74	102,640	1,387	100
Firemen	102	164,450	1,612	32
Switch and trackmen	127	191,600	1,508	613
Mechanics	147	209,852	1,428	368
Station agents	41	91,800	2,239	38
Office, station and yardmen	196	375,141	1,914	601
Totals	851	$1,517,883	$1,784	1,844

(10) *To the question No. 12—*

"Do you belong to any other Provident Society from which you receive sick or accident benefits?"

885 answered "Yes."
1,926 " "No."
168 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	44	56
Enginemen	92	76
Brakemen	69	103
Firemen	101	45
Switch and trackmen	121	620
Mechanics	237	306
Station agents	13	66
Office, station and yardmen	208	654
Totals	885	1,926

(11) *To the question No. 13*—

"If not, and the Grand Trunk Insurance and Provident Society is abolished, would you connect yourself with any other Insurance or Provident Society?"

1,598 answered "Yes."
633 " "No."
748 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	62	7
Enginemen	81	34
Brakemen	150	18
Firemen	94	15
Switch and trackmen	366	236
Mechanics	273	106
Station agents	43	16
Office, station and yardmen	529	201
Totals	1,598	633

(12) To *the question No. 14*—

"Would you be in favour of maintaining the Grand Trunk Insurance and Provident Society even if the Company withdrew its annual grant?"

1,009 answered "Yes."
1,536 " "No."
434 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	34	58
Enginemen	53	14
Brakemen	30	136
Firemen	26	117
Switch and trackmen	246	453
Mechanics	221	304
Station agents	33	41
Office, station and yardmen	366	413
Totals	1,009	1,536

13) *To the question No. 15—*

"Have you ever received medical attendance from the Grand Trunk Provident Society?"

2,000 answered "Yes."
884 " "No."
95 did not answer the question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	71	38
Enginemen	116	58
Brakemen	144	35
Firemen	110	36
Switch and Trackmen	510	264
Mechanics	417	148
Station agents	47	27
Office, station and yardmen	585	278
Totals	2,000	884

(14) *To the question No. 16—*

"If so, was the medical attendance satisfactory?"

1,416 answered "Yes."
510 " "No."
74 who received medical attendance did not answer this question.
979 did not receive medical attendance or answer this question.

2,979

The answers to this question by classes were as follows:—

	"Yes."	"No."
Conductors	43	22
Enginemen	89	26
Brakemen	72	67
Firemen	56	51
Switch and trackmen	408	87
Mechanics	271	122
Station agents	38	7
Office, station and yardmen	439	128
Totals	1,416	510

(15) *To the question No. 17—*

"Are you satisfied with the present system of management of the Grand Trunk Insurance and Provident Society, and if not, in what respect is it in your opinion unsatisfactory?"

1,173 answered "Yes."
1,570 " "No."
236 did not answer the question.

2,979

The answers to this question by classes were as follows :—

	"Yes."	"No."
Conductors	34	60
Enginemen	66	130
Brakemen	20	161
Firemen	17	117
Switch and trackmen	370	339
Mechanics	191	339
Station agents	45	20
Office, station and yardmen	430	404
Totals	1,173	1,570

EIGHTEENTH ANNUAL REPORT

OF THE

Inspector of Prisons & Public Charities

UPON THE

HOSPITALS

OF THE

PROVINCE OF ONTARIO,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1887.

Printed by Order of the Legislative Assembly.

Toronto:
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1888.

Office of the
Inspector of Prisons and Public Charities, Ontario,
Parliament Buildings. Toronto, December, 1887.

Sir,—I have the honour to transmit herewith, to be presented to His Honour, the Lieutenant-Governor, the Eighteenth Annual Report upon the Hospitals of the Province of Ontario, being for the official year ending on the 30th September, 1887.

I have the honour to be, Sir,
Your most obedient servant,

W. T. O'REILLY,
Inspector.

The Honourable
Arthur Sturgis Hardy, Q.C., M.P.P.,
Secretary for the Province of Ontario,
Toronto.

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HOSPITALS.

EIGHTEENTH

ANNUAL REPORT

OF THE

Inspector of Prisons and Public Charities

FOR THE

PROVINCE OF ONTARIO.

OFFICE OF THE
INSPECTOR OF PRISONS AND PUBLIC CHARITIES,
PARLIAMENT BUILDINGS,
TORONTO, December, 1887.

To the Honourable SIR ALEXANDER CAMPBELL, K.C.B.,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I beg to submit herewith the Eighteenth Annual Report upon the Hospitals of Ontario, being for the official year ending 30th September, 1887.

I have the honour to be,
Your Honour's most obedient servant,

W. T. O'REILLY,
Inspector.

HOSPITALS.

No additions have been made to the number of Hospitals in Ontario which are in receipt of aid from Provincial funds, under the Charity Aid Act, but the number of persons who have been under treatment in the existing Hospitals, has been somewhat increased during the past year. The increase having been 487 in a total of 7,522. The number of days' stay of patients in Hospitals has also been higher, the average being 32.25 per cent. in 1887, against 31.60 per cent. in 1886.

The following comparative statement shews the numbers treated in all the hospitals in each of the past ten years, with the increase or decrease in each successive year as the case may be :—

		Increase.	Decrease.
1878	4,372	295	..
1879	4,612	240	..
1880	5,302	690	..
1881	5,257	..	45
1882	6,032	775	..
1883	6,238	206	..
1884	6,369	131	..
1885	6,617	248	..
1886	7,035	418	..
1887	7,522	487	..

Owing to the increased numbers of persons treated in the Hospitals and their longer average stay, the sum to be granted in aid of Hospitals, under the Charity Aid Act, will be larger than in the previous year. The vote to be asked for in respect to work done in 1887, apportioned according to the statute, will be $63,674.58, as against $57,939.66, in 1886, an increase of $5,734.92.

Table VII. of this report shews the basis upon which Legislative aid is granted to the various Hospitals, and Table XI. shews the proportion of the maintenance of each Hospital which is borne by the Legislature. An examination of the latter table in connection with table No. VI., will shew that in some instances the Legislature is the largest contributor to the funds, and that in three instances more than half the whole expense of maintenance come out of Provincial funds.

The only important change which has taken place in Hospital affairs during the past year, was the passage of the Act 50 Victoria, Chapter 58, which vests the General Hospital, of the City of London, which has hitherto been managed by a committee of the City Council, in a board of five trustees. The functions and composition of which is as follows :—

Section 1.—The general management of the Hospital of the City of London, shall be vested in and exercised by a Board, to be called the Board of Hospital Trustees of the City of London.

Section 2.—The Board shall be a body politic and corporate, and shall be composed of the Mayor of the City, *ex-officio*, and of four other members, of whom one shall be appointed by the Lieutenant-Governor in Council; one shall be appointed by the County Council of the County of Middlesex; and two by the municipal electors of the City of London.

This Act did not come in force until the 1st December last, so that its workings have not yet been fully tested. But there can be little doubt that the removal of the management of this Hospital from the arena of municipal politics, cannot but be of the greatest benefit to the Institution.

Under the Charity Aid Act, Chapter 248, R. S. O. 1887, Hospitals are entitled to a fixed allowance of 20 cents per day for all adult patients adjudged to have been properly in residence, and 7 cents per day for chronic cases not undergoing active treatment, and who could as well be cared for outside the walls of the Hospital. In addition to which the Act provides for a supplementary allowance of 10 cents per day for those patients, in respect of whom the fixed allowance of 20 cents per day is granted, provided such supplementary grant does not exceed one-fourth of the revenue of the Hospital, received for purposes of maintenance from sources other than the Legislature of Ontario.

The sums placed opposite the names of the Hospitals in the following table represent the amounts earned during the year by each Hospital, in respect of work done, and which will be reported for payment, subject to the conditions imposed by orders in Council and my recommendations in each particular case:—

General Hospital, Toronto	$21,883 91
City Hospital, Hamilton	5,810 93
General Hospital, Kingston	3,901 62
Hotel Dieu, Kingston	2,812 54
General Protestant Hospital, Ottawa	4,604 70
Roman Catholic Hospital, Ottawa	4,389 13
House of Mercy, Lying-in Hospital, Ottawa	1,753 49
General Hospital, London	5,669 26
General and Marine Hospital, St. Catharines	2,031 18
General Hospital, Guelph	2,139 25
St. Joseph's Hospital, Guelph	2,205 45
General Hospital, Pembroke	1,066 39
General Hospital, Mattawa	1,181 70
J. H. Stratford Hospital, Brantford	2,226 39
St. Joseph's Hospital, Port Arthur	897 35
Belleville Hospital, Belleville	1,101 29
	$63,674 58

TABLE I.—Shewing general movements of Patients in each Hospital separately.

HOSPITALS.	Number remaining under treatment on 1st Oct., 1886.	Number admitted during the year ending 30th Sept., 1887.	Number of births in Hospital during the year.	Total number under treatment during the year ending 30th Sept., 1887.	Number discharged during the year.	Number who died during the year.	Number remaining under treatment on 30th Sept., 1887.
General Hospital, Toronto (including the Burnside Lying-in Branch, and the Andrew Mercer Eye and Ear Infirmary Branch)	202	2281	164	2647	2249	177	221
City Hospital, Hamilton	53	606	43	702	589	53	60
General Hospital, Kingston	32	443	37	512	445	33	34
Hotel Dieu Hospital, Kingston	27	374	.....	401	364	14	23
General Protestant Hospital, Ottawa	50	339	.....	389	308	35	46
Roman Catholic Hospital, Ottawa	37	572	.....	609	529	45	35
House of Mercy Lying-in Hospital, Ottawa	25	144	130	299	235	36	28
General Hospital, London	58	474	32	564	478	38	48
General and Marine Hospital, St. Catharines	18	187	9	214	185	11	18
General Hospital, Guelph	12	181	7	200	166	14	20
St. Joseph's Hospital, Guelph	15	212	.....	227	191	7	29
General Hospital, Pembroke	6	104	.....	110	93	8	9
General Hospital Mattawa	8	180	.....	188	163	6	19
John H. Stratford Hospital, Brantford	20	236	9	265	209	21	35
St. Joseph's Hospital, Port Aurthur	7	102	.....	109	88	9	12
Belleville Hospital	6	80	.....	86	64	8	14
Totals	576	6515	431	7522	6356	515	651
Totals for 1886	534	6034	467	7035	5993	472	570

TABLE II.—Shewing Sex, Religious Denominations and Nationalities of Patients under treatment in the various Hospitals.

NAME OF HOSPITALS.	Sex.		Religious Denominations.			Nationalities.					
	Male.	Female.	Protestants of all denominations.	Roman Catholics.	Unknown.	Canadian.	English.	Irish.	Scotch.	United States.	Other Countries.
General Hospital, Toronto	1510	1137	2094	540	13	1203	686	420	140	93	105
City Hospital, Hamilton	390	312	481	199	22	287	165	137	50	38	25
General Hospital, Kingston	305	207	407	105	.....	278	85	107	19	19	4
Hotel Dieu Hospital, Kingston	196	205	64	337	.....	205	33	153	1	8	1
General Protestant Hospital, Ottawa	244	145	338	28	23	162	109	60	28	6	24
Roman Catholic Hospital, Ottawa	302	307	17	590	2	362	37	161	15	18	16
House of Mercy Lying-in Hospital, Ottawa	56	243	108	189	2	94	83	95	21	2	4
General Hospital, London	345	219	438	126	.....	245	146	95	38	18	22
General and Marine Hospital, St. Catharines	143	71	140	74	.....	94	34	60	10	9	7
General Hospital, Guelph	130	70	180	20	.....	97	43	13	37	8	2
St. Joseph's Hospital, Guelph	83	144	24	203	.....	118	12	82	2	3	10
General Hospital, Pembroke	61	49	16	94	.....	73	4	26	.....	2	5
General Hospital, Mattawa	124	64	30	155	3	120	12	39	6	7	4
John H. Stratford's Hospital, Brantford	153	112	231	34	.....	152	67	24	8	10	4
St. Joseph's Hospital, Port Arthur	96	13	54	54	1	33	27	18	9	3	19
Belleville Hospital	53	33	57	29	.....	33	18	23	4	7	1
Totals	4191	3331	4679	2777	66	3556	1561	1513	388	251	253
Totals for 1886	3911	3124	4130	2851	54	2909	1387	1671	614	212	242

TABLE III.—Detailed analysis of the diseases or ailments for which patients received treatment.

DISEASE.	Male.	Female.	Total.
Alimentary Canal.			
Colic	9	7	16
Constipation	10	11	21
Dysentery	17	27	44
Diarrhœa	48	43	91
Dyspepsia	74	56	130
Enteritis	21	6	27
Fistula-in-ano	27	5	32
Gastrodynia	2	2	4
Gastritis	41	25	66
Glossitis	1	....	1
Hæmorrhoids	35	10	45
Hœmatemesis	10	4	14
Intestinal Worms	2	1	3
Imperforated anus	....	1	1
Œsophagus (diseases of)	3	2	5
Pharyngitis	2	5	7
Peritonitis	9	15	24
Prolapsus ani	1	2	3
Quinsy	2	5	7
Stomatitis	9	8	17
Tabes enesenterica	25	27	52
Tonsollitis	1	....	1
Typhlitis	2	1	3
Ulceration of Stomach	5	6	11
Brain and Nervous System.			
Apoplexy	8	1	9
Chorea	1	7	8
Concussion of Brain	6	1	7
" Spine	6	6	12
Compression of Brain	2	....	2
" Spine	2	....	2
Delirium Tremens	37	6	43
Epilepsy	28	12	40
Hemiplegia	19	9	28
Hydrocephalus	5	53	58
Hysteria	....	1	1
Inflammation of Brain	5	1	6
Insolation	1	....	1
Insomnia	4	3	7
Insanity	13	21	34
Locomotor Ataxia	11	3	14
Lumbago	6	....	6
Myelitis	6	1	7
Neuralgia	32	38	70
Neuroma	1	....	1
Neurasthenia	4	11	15
Paralysis, General	26	11	37
Paraplegia	6	1	7
Paralysis Agitans	3	....	3
Softening of Brain	8	2	10
Spina Bifida	1	....	1
Sciatica	30	7	37
Spinal Curvature	11	8	19
Tubercular Meningitis	2	3	5
Tetanus	4	....	4
Bones.			
Anchylosis	2	3	5
Caries	21	11	32
Necrosis	35	11	46
Ostitis	8	2	10
Periostitis	10	6	16
Rickets	3	....	3
Circulation.			
Angina Pectoria	3	....	3
Aneurisms	2	1	3
Atheroma of Vessels	....	1	1
Disease of Aortic Valves	5	....	5
" Mitral Valves	13	3	16
" Pulmonary Artery	3	....	3
Embolism	1	....	1
Endocarditis	7	2	9
Heart Disease	18	9	27
Heart, Dilation of	4	3	7
" Hypertrophy	10	4	14
" Degeneration	4	....	4
Nævus	....	2	2
Pericarditis	2	....	2
Phlebitis	1	5	6
Phlegmasia Dolens	....	1	1
Varicose Veins	4	2	6
Dislocations.			
Ankle	3	2	5
Bones of the Hand	1	1	2
" Foot	2	....	2
Clavical	1	1	2
Elbow	3	2	5
Femur	4	2	6
Humerus	5	6	11
Knee	3	3	6
Lower Maxilla	3	1	4
Wrist	1	1	2
Ear.			
Cophosis	2	....	2
Otorrhœa	2	4	6
Otitis Media	1	....	1
Stricture of Eustachian Tube	....	2	2
Eye.			
Astigmatism	1	1	2
Amarosis	1	....	1
Amblyophia	1	1	2
Cataract	29	12	41
Conjunctivitis	30	12	42
Entropion	....	2	2
Ectropion	3	4	7
Ennelection of Eye	4	4	8
Foreign body in the Eye	1	....	1
Glaucoma	5	5	10
Iritis	16	14	30
Keratitis	14	11	25
Leucoma	2	....	2
Lachrymal Fistula	3	1	4
Nebula	1	3	4
Ophthalmia	14	9	23
" Catarrhal	9	7	16

TABLE III—*Continued.*—Detailed analysis of the diseases or ailments for which patients received treatment.

DISEASE.	Male.	Female.	Total.
Eye.—Continued.			
Opthalmia, Purulent	1	4	5
" Granular	24	21	45
" Gonorrhœal	1	1	2
Pterygium	2	....	2
Retinitis	4	3	7
Staphyloma	....	1	1
Strabismus	8	8	16
Trichiasis Ciliorum	2	....	2
Ulcer of Cornea	21	5	26
Fractures.			
Bones of the Head and Face	14	3	17
" Hand	5	1	6
" Foot	8	....	8
" Pelvis	2	....	2
Clavical	9	2	11
Femur	23	5	28
Fibula	10	7	17
Humerus	15	....	15
Patella	2	....	2
Potts Fracture	9	1	10
Ribs	29	1	30
Radius	3	11	14
Radius and Ulna	4	....	4
Scapula	1	....	1
Sternum	2	....	2
Tibia	20	5	25
Tibia and Fibula	18	4	22
Ulna	3	1	4
Vertibra	7	....	7
Liver.			
Abscess of Liver	2	1	3
Cirrhosis	11	2	13
Fatty Liver	....	3	3
Gall Stones	..	1	1
Hepatitis	9	8	17
Hydatds of Liver	1	1	2
Jaundice	10	6	16
Nose and Face.			
Catarrh	27	31	58
Epistaxis	....	1	1
Lipoma	2	2	4
Ozœna	1	....	1
Polypus	3	4	7
Poisons.			
Gases	1	....	1
Irritant	2	1	3
Lead poisoning	2	....	2
Narcotic	2	2	4
Narcoto-Irritant	....	2	2
Respiratory Organs.			
Asthma	18	17	35
Bronchitis, Acute	88	41	129
" Chronic	55	13	38

DISEASE.	Male.	Female.	Total.
Respiratory Organs.—Continued.			
Croup	....	8	8
Emphysema of Lung	9	4	13
Empyema	2	....	2
Influenza	1	1	2
Laryngitis	2	3	5
Pneumonia	66	30	96
" Pleuro	3	3	6
" Typho	4	4	8
" Broncho	3	....	3
Pleurisy	40	13	53
Phthisis	160	63	223
Pleurodynia	3	2	5
Tubercolosis	13	8	21
Spleen.			
Splenitis	1	1	2
Skin.			
Acne	....	1	1
Boils	10	4	14
Burns and Scalds	16	9	25
Chilblains	1	2	3
Carbuncle	5	2	7
Corns and Bunions	1	3	4
Elephantiasis	2	....	2
Eczema	48	20	68
Erythema	3	1	4
Frost Bites	40	7	47
Herpes	1	1	2
Hydroa	1	....	1
Impetigo	....	1	1
Intertrigo	1	2	3
Lupus	5	4	9
Onychia	1	....	1
Pruritus	3	1	4
Pediculi	6	....	6
Pityriasis	3	1	4
Psoriasis	8	1	9
Pemphigus	....	3	3
Ringworm	2	3	5
Scabies	42	23	65
Sycosis	5	1	6
Uticaria	2	3	5
Whitlow	6	3	9
Urinary Organs.			
Bright's Disease, Acute	12	4	16
" Chronic	15	3	18
Balanitis	2	....	2
Bubo	23	2	25
Cystitis	40	10	50
Condyloma	1	2	3
Diabetes Mellitus	8	....	8
" Insipidus	2	....	2
Displaced Kidney	1	....	1
Enlarged Prostate	5	....	5
Epididymitis	9	....	9
Gonorrhœa	22	18	40
Gleet	3	....	3
Hydrocele	19	....	19

TABLE III—*Continued.*—Detailed analysis of the diseases or ailments for which patients received treatment.

DISEASE.	Male.	Female.	Total.
Urinary Organs.—Continued.			
Hæmatocele	2	....	2
Incontinence of Urine	7	2	9
Orchitis	13	....	13
Pyelitis	2	....	2
Phymosis	6	....	6
Retention of Urine	5	3	8
Suppurative Nephritis	8	7	15
Stricture	28	1	29
Spermatorrhœa	1	....	1
Urinary Calculus	11	2	13
Varicocele	1	....	1
Women.			
Amenorrhœa	....	14	14
Abortion	....	5	5
Atresia Vaginæ	....	2	2
Dysmenorrhœa	....	14	14
Erosion of Os Uteri	....	7	7
Leucorrhœa	....	3	3
Laceration of Prineum	....	2	2
" Cervix	....	23	23
Metritis and Endometritis	....	55	55
Menorrhagia	....	18	18
Ovarian Disease	....	31	31
Parturition	....	355	355
Pys-Salpinx	....	7	7
Uterus, Anteversion of	....	16	16
" Retroversion of	....	11	11
" Anteflection of	....	1	1
" Retroflection of	....	7	7
" Prolapsus of	....	12	12
Vaginitis	....	4	4
Womb, Polypus of	....	3	3
" Fribroid of	....	6	6
" Cancer of	....	11	11
Zymotic and General.			
Anæmia	10	70	80
Anasarca	....	2	2
Chicken Pox	....	1	1
Cholera Morbus	.	1	1
" Infantum	1	3	4
Chlorosis	....	21	21
Diphtheria	74	107	181
Dropsy	12	12	24
Erysipelas	24	31	55
Fever, Intermittent	27	13	40
" Remittent	22	11	33
" Scarlet	12	13	25
" Typho-Malarial	3	7	10
" Typhoid	194	135	329
" Cerebro-Spinal	....	1	1
" Puerperal	....	3	3
" Continued	5	9	14
Gout	1	....	1
Influenza	....	4	4

DISEASE.	Male.	Female.	Total.
Zymotic and General.—Continued.			
Measles	45	17	62
Mumps	5	....	5
Pyæmia, Septicæmia	3	8	11
Purpura	4	5	9
Rheumatism, Acute	144	72	216
" Chronic	42	28	70
" Gonorrhœal	6	3	9
Rothelm	....	1	1
Scrofula	17	6	23
Syphilis, Primary	45	51	96
" Secondary	21	14	35
" Tertiary	13	9	23
" Hereditary	1	4	5
Vaccination	1	....	1
Whooping Cough	....	2	2
Miscellaneous, not otherwise classed.			
Abscess, General	68	37	105
" Psoas	8	4	12
" of Breast	....	12	12
Alcoholism	152	18	170
Amputations	62	9	71
Arthritis	16	9	25
Adenitis	8	4	12
Bursitis	2	5	7
Cancer, Epithelial	30	13	43
" Encephaloid	9	6	15
" Shirrus	11	29	40
" Melanotic	3	....	3
Contusions	92	22	114
Cellulitis	11	2	13
Coxalgia	10	7	17
Debility	88	106	194
Goitre	1	3	4
Gangrene	6	....	6
Gunshot wounds	15	....	15
Hernia	8	2	10
Hair lip and cleft palate	3	1	4
Injuries not otherwise classed	168	37	205
Ingrowing toe nail	4	5	9
Lymphangitis	1	2	3
Not classed	30	34	64
Opium eaters	2	1	3
Obesity	1	....	1
Removal of loose cartilage	1	....	1
Scurvy	1	....	1
Sprains	27	12	39
Synovitis	30	5	35
Tumors—Fibroid	5	3	8
" Fatty	....	4	4
" Cartilaginous	....	2	2
" Cystic	3	8	4
" Other	8	20	28
Talipes	4	2	6
Ulcers	164	87	251
Urethrel Fistula	1	....	1

TABLE IV.—Shewing the collective stay in days of the adult and infant patients; also, the average length of time each patient was under treatment.

NAMES OF HOSPITALS.	Number of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total Collective stay of adults and infants.	Average stay of each patient, including the infants.
General Hospital, Toronto	2647	2206	75172	77378	30
City Hospital, Hamilton	702	73	21991	22725	32
General Hospital, Kingston	512		15665	17523	35
Hotel Dieu Hospital, Kingston	401		11546	11546	28
General Protestant Hospital, Ottawa	389		18155	18155	46
Roman Catholic Hospital, Ottawa	669		15174	15174	25
House of Mercy Lying-in Hospital, Ottawa	299	2164	9055	11219	54
General Hospital, London	564	866	22392	23258	41
General and Marine Hospital, St. Catharines	214	235	7157	7392	34
General Hospital, Guelph	200	226	7334	7560	37
St. Joseph's Hospital, Guelph	227		7911	7911	35
General Hospital, Pembroke	110		3721	3721	34
General Hospital, Mattawa	188		3939	3939	21
John H. Stratford Hospital, Brantford	265	175	7741	7916	30
St. Joseph's Hospital, Port Arthur	209		3153	3153	29
Belleville Hospital	86	41	3799	3840	44
Totals	7522	8505	233905	242410	32.25
Totals for 1886	7035	8059	214887	222946	31 36

TABLE V.—Shewing the deductions which have to be made from the collective stay of the patients for the protracted residence of incurable and lying in cases. For persons coming within these classes only seven cents per day are allowed.

NAMES OF HOSPITALS.	Collective day's stay, exclusive of infants under one year of age.	Deduct for incurables and lying-in cases, for which only Refuge rate is to be allowed.	Number of days' stay for which Hospital allowance is to be made.
General Hospital, Toronto	75172	2903	72269
City Hospital, Hamilton	21991	3419	18572
General Hospital, Kingston	15665	1805	13860
Hotel Dieu Hospital, Kingston	11546	1687	9859
General Protestant Hospital, Ottawa	18155	3660	14495
Roman Catholic Hospital, Ottawa	15174	493	14681
House of Mercy Lying-in Hospital, Ottawa	9055	4187	4868
General Hospital, London	22392	4558	17834
General and Marine Hospital, St. Catharines	7157	504	6653
General Hospital, Guelph	7334	265	7069
St. Joseph's Hospital, Guelph	7911	.....	7911
General Hospital, Pembroke	3721	217	3504
General Hospital, Mattawa	3939	.....	3939
John H. Stratford Hospital, Brantford	7741	417	7324
St. Joseph's Hospital, Port Arthur	3153	.....	3153
Belleville Hospital	3799	167	3632
Totals	233905	24282	209,623
Totals for 1886	214887	25650	189237

TABLE VI.—Relative to Income of Hospitals.

NAMES OF HOSPITALS.	Amounts received from municipalities as a grant and for patients' maintenance.	Amount received from patients for board.	Amount received as income from property or investments belonging to Hospitals.	Subscriptions and donations of private individuals and incidental receipts.	Total receipts from all sources other than the Government grant.	One-fourth of such receipts.	Amount of the 10 cents per day additional grant.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
General Hospital, Toronto	14993 20	14972 33	12760 36	5371 00	48096 89	12024 22	7226 90
City Hospital, Hamilton	8015 61	1100 13	.....	.....	9115 74	2278 94	1857 20
General Hospital, Kingston	900 00	1012 01	849 42	1251 68	4013 11	1003 27	1386 00
Hotel Dieu Hospital, Kingston	133 75	616 90	45 67	2094 27	2890 59	722 65	985 90
General Protestant Hospital, Ottawa	1570 00	1910 06	41 70	4168 42	7690 18	1922 55	1449 50
Roman Catholic Hospital, Ottawa	1000 00	2171 05	150 00	2352 64	5673 69	1418 42	1468 10
House of Mercy Lying-in Hospital, Ottawa	.....	923 68	84 25	1226 86	5234 79	1308 69	486 80
General Hospital, London	10037 70	2202 33	454 47	.....	12694 50	3173 62	1783 40
General and Marine Hospital, St. Catharines	1600 00	849 70	18 84	1952 87	4421 41	1105 35	665 30
General Hospital, Guelph	2000 00	786 50	.....	594 26	3380 76	845 19	706 90
St. Joseph's Hospital, Guelph	1000 00	789 00	300 00	404 00	2493 00	623 25	791 10
General Hospital, Pembroke	340 00	557 87	.....	928 63	1826 50	456 62	350 40
General Hospital, Mattawa	.....	559 75	.....	1204 89	1764 64	441 16	393 90
John H. Stratford Hospital, Brantford	2500 00	1274 24	.....	5 00	3779 24	944 81	732 40
St. Joseph's Hospital, Port Arthur	350 00	492 00	.....	225 00	1067 00	266 75	315 30
Belleville Hospital	337 00	349 25	.....	1377 54	2063 79	515 95	363 20
Totals	44777 26	30566 80	14704 71	26157 06	116205 83	29051 44	20962 30
Totals for 1886	39668 60	27700 27	15211 13	25123 53	108203 53	27050 89	18894 70

TABLE VII.—Shewing the basis upon which Statutory Aid is granted, and the amount thereof.

NAMES OF HOSPITALS.	Collective days' stay upon which allowance at Hospital rates is based.	Collective days' stay upon which allowance at Refuge rates is based.	Fixed allowance at 20 cents per day.	Supplementary allowance of one-fourth of amount received from all sources other than Government.	Supplementary allowance at 10 cents per day.	Allowance of 7 cents per day, being Refuge rate for improper cases for Hospital treatment.	Total Government allowance to each Hospital for the year 1888.
			$ c.	$ c.	$ c.	$ c.	$ c.
General Hospital, Toronto	72269	2903	14453 80	.....	7226 90	203 21	21883 91
City Hospital, Hamilton	18572	3419	3714 40	.....	1857 20	239 33	5810 93
General Hospital, Kingston	13860	1805	2772 00	1003 27	.....	126 35	3901 62
Hotel Dieu Hospital, Kingston	9859	1687	1971 80	722 65	.....	118 09	2812 54
General Protestant Hospital, Ottawa	14495	3660	2899 00	.....	1449 50	256 20	4604 70
Roman Catholic Hospital, Ottawa	14681	493	2936 20	1418 42	.....	34 51	4389 13
House of Mercy Lying-in Hospital, Ottawa	4868	4187	973 60	.....	486 80	293 09	1753 49
General Hospital, London	17834	4558	3566 80	.....	1783 40	319 06	5669 26
General and Marine Hospital, St. Catharines	6653	504	1330 60	.....	665 30	35 28	2031 18
General Hospital, Guelph	7069	265	1413 80	.....	706 90	18 55	2139 25
St. Joseph's Hospital, Guelph	7911	.....	1582 20	623 25	.....	.....	2205 45
General Hospital, Pembroke	3504	217	700 80	.....	350 40	15 19	1066 39
General Hospital, Mattawa	3939	.....	787 80	.....	393 90	.....	1181 70
John H. Stratford Hospital, Brantford	7324	417	1464 80	.....	732 40	29 19	2226 39
St. Joseph's Hospital, Port Arthur	3153	.....	630 60	266 75	.....	.....	897 35
Belleville Hospital	3632	167	726 40	.....	363 20	11 69	1101 29
Totals	209623	24282	41924 60	4034 34	16015 90	1699 71	63674 58
Totals for 1886	189237	25650	37847 40	2455 96	15840 80	1795 50	57939 66

TABLE VIII.—Shewing the cost of maintaining the Hospital; also, the average daily cost per patient, etc.

NAMES OF HOSPITALS.	Total days' stay (excluding infants under one year of age.)	Cost of dietaries.	Salaries, fuel, light, medicines, bedding, and all other expenditures on maintenance account.	Total expenditures for maintenance.	Average cost of each patient per day.
		$ cts.	$ cts.	$ cts.	cents.
General Hospital, Toronto	77378	21276 15	35393 72	56669 87	73.24
City Hospital, Hamilton	22725	4641 82	10356 57	14998 39	66.00
General Hospital, Kingston	17523	3751 80	6134 08	9885 88	56.42
Hotel Dieu Hospital, Kingston	11546	2924 89	2168 82	5093 71	44.10
General Protestant Hospital, Ottawa	18155	2776 17	8428 93	11205 10	62.00
Roman Catholic Hospital, Ottawa	14571	3544 44	3174 67	6719 11	46.72
House of Mercy Lying-in Hospital, Ottawa	11219	1777 60	1909 77	3687 37	32.81
General Hospital, London	23258	6411 26	10791 90	17203 16	73.96
General and Marine Hospital, St. Catharines	7392	1582 93	3026 04	4608 97	63.43
General Hospital, Guelph	7560	1457 59	3562 84	5020 43	66.40
St. Joseph's Hospital, Guelph	7911	1770 35	2370 33	4140 68	52.34
General Hospital, Pembroke	3721	1021 23	1488 89	2510 12	67.75
General Hospital, Mattawa	3939	971 60	1272 85	2244 45	56.98
John H. Stratford Hospital, Brantford	7916	1327 44	3277 03	4604 47	58.17
St. Joseph's Hospital, Port Arthur	3153	755 40	1268 00	2023 40	64.17
Belleville Hospital	3840	436 34	1258 03	1694 37	44.12
Totals	241807	56427 01	95882 47	152309 48	62.99
Totals for 1886	214597	53423 41	83247 13	136670 54	63.68

TABLE IX.—Shewing the average cost per day of the principal items of consumption in the various Hospitals.

NAMES OF HOSPITALS.	Butchers' meat.	Butter.	Flour, bread and meal.	Milk.	Tea and Coffee.	Potatoes and other vegetables.	Groceries and provisions not enumerated.	Drugs and medicines.	Beer, wine and spirits.	Bedding, napery and general house furnishings.	Brooms, brushes, mops, soap and cleaning appliances.	Fuel.	Light, gas, oil and candles.	Water supply.	Hay and straw.	Clothing for patients, including boots and shoes.	Ice.	Salaries and wages.	Taxes and insurance.	Coffins and funerals.	Contingencies.	Repairs, ordinary.
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
General Hospital, Toronto	11.04	2.10	2.60	5.60	0.97	1.76	3.70	3.87	1.70	5.40	0.66	7.19	1.40	0.74	0.08	0.38	0.14	17.60	0.80	0.00	0.28	3.90
City Hospital, Hamilton	7.22	1.10	2.78	3.60	1.28	0.96	3.60	5.00	1.04	3.12	0.97	9.20	2.13	1.06	....	0.62	0.63	15.40	2.16	....	2.06	2.01
General Hospital, Kingston	4.71	2.35	2.91	3.72	0.90	1.80	5.06	1.42	0.25	5.06	0.42	4.40	0.60	0.26	....	0.16	0.09	9.60	0.26	0.18	2.63	1.10
Hotel Dieu Hospital, Kingston	6.50	1.71	5.38	1.03	3.64	1.76	5.07	1.66	0.31	0.74	0.67	3.81	0.70	0.47	0.79	0.56	0.08	1.94	1.72	0.54	0.80	1.02
General Protestant Hospital, Ottawa	4.61	1.75	2.53	3.26	0.92	0.62	1.90	4.10	0.70	0.18	1.20	0.57	0.60	0.92	0.14	....	0.05	15.92	....	0.72	3.20	2.70
Roman Catholic Hospital, Ottawa	7.65	4.43	3.11	0.07	1.04	1.87	4.91	2.09	0.21	2.20	0.29	2.16	0.56	0.56	....	1.60	0.06	4.61	2.12	....	2.90	4.11
House of Mercy Lying-in Hospital, Ottawa	4.85	1.52	2.66	3.67	0.26	1 70	3.80	0.40	0.32	2.16	0.44	3.92	0.46	1.10	1.12	1.14	0.26	4.29	0.10	0.17	0.07	1.26
General Hospital, London	9.16	2.40	2.48	4.05	1.60	1.52	6.52	4.00	1.16	7.72	1.00	5.80	2.45	0.45	0.20	0.05	....	16.79	0.05	....	1.12	3.10
General and Marine Hospital, St. Catharines	5.17	1.41	3.46	3.20	1.55	2.31	3.83	6.00	0.11	0.33	0.80	5.74	0.76	0.18	0.13	.....	....	23.54	0.13	....	0.07	1.44
General Hospital, Guelph	6.35	1.75	3.38	0.07	1.62	0.73	6.80	4.76	1.80	5.10	0.53	8.22	1.63	0.52	0.12	0.10	0.12	18.30	....	....	3.09	2.50
St. Joseph's Hospital, Guelph	5.95	1.26	2.31	2.67	2.64	1.24	8.64	6.28	1.93	5.00	1.56	4.00	0.56	....	1.12	0.56	0.06	2.18	....	....	3.21	3.10
General Hospital, Pembroke	9.08	2.87	3.61	0.75	4.60	3.00	6.09	3.30	0.46	2.16	0.90	1 55	1.90	0.72	2.60	2.16	0.15	5.70	5.00	0.66	0.94	2.10
General Hospital, Mattawa	7.62	2.54	7.00	0.30	2.05	1.97	2.12	1.94	0.72	3.02	0.42	9.51	0.67	....	2.00	0.40	0.29	8.16	....	0.61	2.40	2.80
John H. Stratford Hospital, Brantford	5.34	1.81	2.31	3.70	0.70	0.65	2.87	2.56	0.40	5.26	0.56	7.64	0.77	....	....	.....	0.35	17.25	....	1.06	3.00	3 00
St. Joseph's Hospital, Port Arthur	8.10	2.16	4.31	2.24	0.18	1.62	3.06	6.07	3.06	8.90	1.07	4.10	1.70	1.12	....	.....	....	5.26	....	0.60	2.70	5.00
Belleville Hospital	2.82	1.48	1.92	1.77	0.31	0.95	2.10	1.62	0.12	7.29	0.80	2.60	0.80	....	0.30	.....	....	15.20	0.60	....	0.84	1.44

TABLE X.—Shewing the comparative cost per patient daily in the different Hospitals for a period of years.

HOSPITALS.	1882.	1883.	1884.	1885.	1886.	1887.
	c.	c.	c.	c.	c.	c.
General Hospital, Toronto	64.77	70.46	76.64	85.71	77.71	73.24
City Hospital, Hamilton	.....	.....	61.77	59.22	62.70	66.00
General Hospital, Kingston	48.04	49.04	51.11	53.00	48.09	56.42
Hotel Dieu Hospital, Kingston	53.30	57.35	58.95	45.54	54.85	41.10
General Protestant Hospital, Ottawa	43.23	53.82	47.66	47.80	49.67	62.00
Roman Catholic Hospital, Ottawa	.....	.....	55.91	52.94	41.09	46.12
House of Mercy Lying-in Hospital, Ottawa	37.25	45.57	54.13	17.17	39.58	32.81
General Hospital, London	57.90	58.61	74.38	62.72	67.83	73.96
General and Marine Hospital, St. Catharines	86.12	71.36	65.99	81.58	60.07	63.43
General Hospital, Guelph	71.01	68.60	72.53	64.41	90.87	66.40
St. Joseph's Hospital, Guelph	74 13	62.78	51.62	57.05	49.02	52.34
General Hospital, Pembroke	74.35	79.05	79.79	65.03	77.67	67.75
General Hospital, Mattawa	58.34	69.25	67.79	68.88	94.39	56.98
John H. Stratford Hospital, Brantford	.....	.....	.....	$1 23.00	71.51	58.17
St. Joseph's Hospital, Port Arthur	.....	.....	.....	47.06	55.12	64.17
Belleville Hospital	.....	.....	.....	.....	.....	44.12
Totals	60.77	62.35	65.10	66.23	63.68	62.99

TABLE XI.—Shewing proportion of maintenance of Hospitals paid by Government.

NAME OF HOSPITALS.	Revenue on maintenance account exclusive of Government grant.	Government grant in aid of maintenance.	Total revenue for maintenance.	Total expenditure for maintenance.	Percentage of Government grant to total expenditure for maintenance.
	$ c.	$ c.	$ c.	$ c.	
General Hospital, Toronto	48096 89	19204 16	67301 05	56669 87	33.89
City Hospital, Hamilton	9115 74	6148 65	15264 39	14990 39	41.60
General Hospital, Kingston	4013 11	3810 87	7823 98	9885 88	38.54
Hotel Dieu Hospital, Kingston	2890 59	2808 78	5699 37	5093 71	55.14
General Protestant Hospital, Ottawa	7690 18	4503 65	12193 83	11205 10	40.11
General Roman Catholic Hospital, Ottawa	5673 69	3470 06	9143 75	6719 11	51.64
House of Mercy Lying-in Hospital, Ottawa	5234 79	1925 88	7160 67	3687 37	52.23
General Hospital, London	12694 50	5670 30	18364 80	17203 16	32.96
General and Marine Hospital, St. Catharines	4421 41	2039 92	6461 33	4608 97	44.26
General Hospital, Guelph	3380 76	1676 66	5057 42	5020 43	33.39
St. Joseph's Hospital, Guelph	2493 00	2020 64	4513 64	4140 68	48.80
General Hospital, Pembroke	1826 50	837 90	2664 40	2510 12	33.38
General Hospital, Mattawa	1764 64	687 30	2451 94	2244 45	30.62
The John H. Stratford Hospital, Brantford	3779 24	1981 32	5760 56	4604 47	43.03
St. Joseph's Hospital, Port Arthur	1067 00	573 00	1640 00	2023 40	28.31
Belleville Hospital, Belleville	2063 79	87 00	2150 79	1694 37	....
Totals	116205 83	57446 09	173651 92	152309 48	37.71

INSPECTION REPORTS.

GENERAL HOSPITAL, TORONTO.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment in all departments of the Hospital, 1st October, 1886	202	
Admitted	2,281	
Births in the Hospital	164	
Total number under treatment		2,647
Discharges, including infants	2,249	
Died	177	
Under treatment, 30th September, 1887	221	
		2,647

Of the 2,647 patients treated during the year, 151 males and 72 females were inmates of the Andrew Mercer Eye and Ear Infirmary, and 357 in the Burnside Lying-in branch. The latter number includes 83 male and 81 female children born in the Institution.

Places received from.

From the City of Toronto (including 164 infants born)	1,905	
From the County of York	136	
From other counties of the Province	487	
From United States	110	
From other countries, including immigrants	9	
		2,647

Sex.

Male	1,510	
Female	1,137	
		2,647

Nationalities.

Canadian	1,203	
English	686	
Irish	420	
Scotch	140	
United States	93	
Other countries	105	
		2,647

Religious Denominations.

Protestant	2,094	
Roman Catholic	540	
Other religions, or not known	13	
		2,647

Revenue.

From the Province of Ontario	$19,204 16
From the City of Toronto, in payment of patients' maintenance	13,737 60
From the County of York, in payment of patients' maintenance	553 60
From other Municipalities of the Province	702 00
From paying patients themselves	14,972 33
Income from property belonging to Hospital Trust	12,760 36
Subscriptions, donations, and bequests of private individuals	867 00
From all other sources not above enumerated	4,504 00
Total	$67,301 05

Expenditure.

Butchers' meat	8,539 30
Butter	1,624 78
Eggs	717 29
Flour, bread, and meal	2,010 38
Milk	3,839 76
Tea and coffee	995 00
Potatoes and other vegetables	1,529 70
Groceries and provisions not enumerated	2,019 94
Drugs and medicines	4,028 59
Medical and surgical appliances	2,015 98
Surgical instruments	18 64
Beer, wine and spirits	623 80
Bedding, napery, and general house furnishing	4,070 45
Brooms, brushes, mops, soap, and cleaning appliances	405 59
Fuel	5,156 96
Light—gas, oil, and candles	1,040 27
Water supply	594 81
Hay and straw	96 67
Clothing for patients, including boots and shoes	263 45
Ice	185 00
Salaries and wages	13,103 80
Taxes and insurance	436 21
Contingencies	202 86
Repairs, ordinary	3,025 19
Advertising, stationery, etc.	125 45
Total	$56,669 87

Government grant for 1888.

Allowance for Hospital cases, 72,269 days at 20 cents	$14,453 80
Supplementary allowance, 72,269 days at 10 cents	7,226 90
Allowance for improper cases for Hospital treatment, 2,903 days at 7 cents	203 21
Total	$21,883 91

INSPECTION.

Copies of the reports made to the Government, by Mr. Christie, upon this hospital are annexed :—

"I made an inspection of the General Hospital, Toronto, on the 28th January 1887. There were 234 patients under charge on that day, distributed as follows:

"In the general wards 123 males and 79 females; in the eye and ear infirmary, 11 males and 6 females; and in the Burnside Lying-in department, 10 females and four infants. On the corresponding date of the previous year the total number under treatment was 200, showing an increase of 34 patients at the present date.

"From the register I found that the patients longest in residence was admitted on the 18th March, 1886; it is a surgical case and the patient has been under active treatment during the term of his residence. Two other patients were admitted in April following, 5 in May, 1 in June, 1 in July, 3 in August, 4 in September, and the remaining 217 have all been admitted since the 1st October last. I found the hospital in good order, and the routine work appeared to be going on in a satisfactory manner.

"Repairing, calsomining, painting and disinfecting were being proceeded with in the wards and corridors where such work was required, and the sanitary condition of the institution generally was being well looked after.

"A larger number of students are in attendance during the present term than at any former period. The class register numbered 506.

"I made an examination of the books, daily record, register, Medical Supeintendent's daily record, and the dietary books, (the latter contains the prescribed diet of all patients), and found them all neatly kept, and in satisfactory form.

'I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made a second inspection of the General Hospital, Toronto, on the 27th September. There was a total of 235 patients under treatment, namely, 142 males and 93 females. The record shewed that no patient now in residence had been admitted prior to 1887. Two only were received in January last, 1 in March, 6 in April, 8 in May, 12 in June, and all the others within the last three months.

"The largest number of patients recorded as under treatment in any one day in this institution since its opening was 246 adults besides a number of children. The most noticeable feature in the routine operations of the hospital since my last visit is the continued success of the training school for nurses. The present number under instruction is fifty. The addition of a nurses residence which has been opened, and ready for occupation, has materially furthered the interest of this branch of the hospital work, affording them, as it does, freedom from the turmoil and anxiety of hospital life during their hours of rest.

"The rooms formerly occupied by them are now devoted to patients requiring isolated rooms.

"The building formerly used for convalescent patients has been fitted up for the reception of female patients under treatment requiring special surgical operations. This building on account of its isolation seems admirably adapted for its purpose.

"Other structural improvements of lesser importance have been and are being made with a view to adding to the efficiency of the hospital. Another fire escape has been placed in the west wing, and a patent-lowering fire escape apparatus has been placed in the attic of the main building.

At the Burnside Lying-in branch some alterations have been made which completely isolate the bath and closets from the wards occupied by the patients. New wards have also been fitted up in the mansard of the east and west wings to accommodate the increased number of patients.

"I note with satisfaction on the occasion of this visit the improved appearance of the interior due to the painting, kalsomining, etc., which it has undergone, and this constant renovating of the walls and work of all apartments no doubt largely accounts for the absence of unpleasant or "hospital" odours.

"I also noted with pleasure the constant and careful supervision of the Chairman of the Hospital Board, Mr. Justice Patterson; an examination of the Trustee's visiting book, showed also that the members of the Board continue their frequent visits."

CITY HOSPITAL, HAMILTON.

The following summaries shew the operations of this hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1886	53	
Admitted	606	
Births in the Hospital	43	
Total number under treatment		702
Discharged	589	
Died	53	
Under treatment, 30th October, 1887	60	
		702

Places received from.

From the City of Hamilton, including births in Hospital	665	
From the County of Wentworth	13	
From other counties in the Province	13	
From United States	3	
From other countries	8	
		702

Sex.

Male	390	
Female	312	
		702

Nationalities.

Canadian	287	
English	165	
Irish	137	
Scotch	50	
United States	38	
Other countries	25	
		702

Religious Denominations.

Protestant	481	
Roman Catholic	199	
Other religions	22	
		702

Revenue.

From the Province of Ontario	$6,148 65
From the City of Hamilton	7,754 14
From other Municipalities in the Province	261 47
From paying patients themselves	1,100 13
Total	$15,264 39

Expenditure.

Butchers' meat	$1,642 12
Butter	451 25
Flour, bread and meal	631 10
Milk	701 45
Tea and coffee	291 68
Potatoes and other vegetables	246 92
Groceries and other provisions not enumerated	677 30
Drugs and medicines	1,134 28
Surgical instruments	11 06
Beer, wine and spirits	236 75
Bedding, etc.	621 74
Brooms, brushes, mops, soap and cleaning appliances	238 26
Fuel	2,091 82
Light—gas, oil and candles	520 08
Water supply	300 00
Hay and straw	17 92
Clothing for patients, including boots and shoes	4 50
Ice	131 85
Salaries and wages	3,436 77
Taxes and insurance	700 00
Coffins and funerals	33 00
Contingencies	449 98
Repairs, ordinary	428 56
Total	$14,998 39

Government Grant for 1888.

Allowance for Hospital cases, 18,572 days at 20 cents	$3,714 40
Supplementary allowance, 18,572 days at 10 cents	1,857 20
Allowance for improper cases for hospital treatment 3,419 days at 7 cents	239 33
Total	$5,810 93

INSPECTION.

A copy of the report made to the Government by me upon this Hospital is annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the City Hospital, Hamilton, on ths 15th October.

"There were then under treatment 34 men and 25 women—total, 59. This Hospital is steadily advancing in efficiency, the building is an excellent one, and everything about it in satisfactory order. I saw all the patients, noted the dates of their admission, etc., and found none present who were not clearly entitled to hospital aid."

GENERAL HOSPITAL, KINGSTON.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1886	32	
Admitted	443	
Births in hospital	37	
Total number under treatment		512
Discharged	445	
Died	33	
Under treatment, 30th September, 1887	34	
		512

Places received from.

From the City of Kingston (including births)	256	
From the County of Frontenac	85	
From other Counties of the Province	165	
From the United States	4	
From other countries	2	
		512

Sex.

Male	305	
Female	207	
		512

Religious denomination.

Protestant	407	
Roman Catholic	105	
		512

Nationalities.

Canadian	178	
English	85	
Irish	107	
Scotch	19	
United States	19	
Other countries	4	
		512

Revenue.

From the Province	$3,810 87
From the Dominion Government	500 00
From the City of Kingston	300 00
From the County of Frontenac	100 00
From other municipalities	.....
From patients themselves, for maintenance and treatment	1,012 01
From property belonging to the Hospital	849 42
From subscriptions, donations and bequests from private individuals	892 39
From all other sources, not enumerated	359 29
	$7,823 98

Expenditure.

Butchers' meat	$ 824 94
Butter	411 98
Flour, bread, and meal	510 46
Milk	331 63
Tea and coffee	259 81
Potatoes and other vegetables	298 53
Groceries and provisions not enumerated	1,114 45
Drugs and medicines	492 94
Surgical instruments	292 96
Beer, wine and spirits	104 83
Bedding, napery and general house furnishings	1,153 20
Brooms, brushes, mops, soap and cleaning appliances	71 48
Fuel	749 86
Light, gas, oil and candles	228 19
Water supply	163 91
Clothing for patients	30 69
Ice	18 00
Salaries and wages	2,038 72
Taxes and insurance	229 90
Coffins and funerals	37 50
Contingencies	311 34
Repairs, ordinary	212 56
Total	$6,134 08

Government grant for 1888.

Allowance for Hospital cases, 13,860 days at 20 cents per day	$2,772 00
Supplementary allowance	1,003 27
Allowance for improper cases for Hospital treatment, 1,805 days at 7 cents	126 35
Total	$3,901 62

INSPECTIONS.

Copies of the reports made to the Government by Mr Christie upon this Hospital are annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the General Hospital, Kingston, and saw all the patients, namely, 27 males and 24 females. About one-third were surgical cases, and under active treatment. From the records I learned that, with one exception, all the patients now in residence have been less than three months under treatment.

"Nine lying-in patients were in residence.

"A fire had occurred in the laundry lately, but it was fortunately discovered in time to have it promptly subdued before any great damage was done.

"No other occurrence worthy of note has taken place since my last visit.

"The school for nurses was reported to be in successful operation, and no difficulty has arisen in securing the services of young women who are mentally and physically fitted for the work."

"I made an inspection of this institution on 5th September, and saw the 46 patients then under treatment. Due attention and care appeared to be taken both in regard to the treatment of the patients and the routine work of the institution. A number of internal improvements have been added since the date of my last visit. Seven sub-divisions have been made, principally in the east wing, and connection with those different wards has been effected by the construction of two passages in the central part of that wing. These divisions provide separate apartments in the lying-in ward, also for a new operating room, together with a new theatre with much better accommodation.

"The centre stairway is very much improved by widening it and new landings being provided, which makes the stairway much easier for the use of convalescent patients.

"The work of painting and kalsomining is now in progress, and will, when finished, add much to the comfort and sanitary condition of the hospital.

"The training school for nurses is also reported to be making satisfactory progress, and the staff appears in this regard to be thoroughly organized and well conducted."

HOTEL DIEU HOSPITAL, KINGSTON.

The following summaries show the operations of this Hospital during the official year :—

Movements of patients.

Number under treatment 1st October, 1886	27	
Admitted	374	
Total number under treatment		401
Discharged	364	
Died	14	
Under treatment 30th September, 1887	23	
		401

Places received from.

From the City of Kingston	220	
From the County of Frontenac	82	
From other counties of the Province	85	
From United States	7	
From other countries	7	
		401

Sex.

Male	196	
Female	205	
		401

Nationalities.

Canadian	205	
English	33	
Irish	153	
Scotch	1	
United States	8	
Other countries	1	
		401

Religious denominations.

Protestant	64	
Roman Catholic	337	
		401

Revenue.

From the Province of Ontario	$2,808 78
From Municipalities	133 75
From patients themselves, for maintenance and treatment	616 90
Income from investments	45 67
Subscriptions, donations and bequests	1,918 76
From other sources not enumerated	175 51
Total	$5,699 37

Expenditure.

Butchers' meat	$749 17
Butter	199 24
Flour, bread and meal	600 94
Milk	177 45
Tea and coffee	301 19
Potatoes and other vegetables	169 11
Groceries and provisions not enumerated	727 79
Drugs and medicines	321 00
Medical and surgical appliances	36 00
Surgical instruments	10 66
Beer, wine, and spirits	38 83
Bedding, napery, and general house furnishings	306 69
Brooms, brushes, mops, soap, and cleaning appliances	70 63
Fuel	577 00
Light—gas, oil, and candles	46 45
Water supply	84 00
Hay and straw	179 00
Clothing for patients, including boots and shoes	24 52
Ice	15 00
Salaries and wages	203 00
Taxes and insurance	80 00
Coffins and funerals	17 50
Contingencies	35 00
Repairs, ordinary	123 54
Total	$5,093 71

Government grant for 1888.

Allowance for hospital cases, 9,859 days, at 20 cents per day	$1,971 80
Supplementary allowance equal to one-fourth of hospital revenue	722 65
Allowance for improper cases for hospital treatment, 1,687 days, at 7 cents	118 09
Total	$2,812 54

INSPECTIONS.

Copies of the reports made to the Government upon this Hospital by Mr. Christie are annexed :

"I made an inspection of the Hotel Dieu Hospital, Kingston, on the 28th April.

"There were twelve males and fourteen females under treatment.

"Up to date there had been 175 patients received since the commencement of the year. All those in residence at the time of my visit appeared to be fit subjects for hospital treatment, and were evidently receiving the best of care.

"The Hospital was in its usual condition of cleanliness and order.

"The thorough ventilation of the wards is a marked and creditable feature of this institution.

"On the 5th of September I made an inspection of the Hotel Dieu Hospital, Kingston, and found there were twenty patients under treatment, nine males and eleven females, all of whom appeared to be receiving good treatment, and spoke gratefully of the kindness bestowed upon them. I found the books, etc., properly kept, and the hospital in its usual state of excellent order and cleanliness.

COUNTY OF CARLETON GENERAL PROTESTANT HOSPITAL, OTTAWA.

The following summaries shew the operations of this Hospital during the official year :—

Movements of patients.

Number under treatment, 1st October, 1886	50	
Admitted	339	
Births in the Hospital	...	
Total number under treatment		389
Discharged	308	
Died	35	
Under treatment, 30th September, 1887	46	
		389

Places admitted from.

From the City of Ottawa	208	
From the County of Carleton	10	
From other Counties in the Province	106	
Other countries	65	
		389

Sex.

Male	244	
Female	145	
		389

Nationalities.

Canadian	162	
English	109	
Irish	60	
Scotch	28	
United States	6	
Other countries	24	
		389

Religious Denominations.

Protestant	338	
Roman Catholic	28	
Other religions, or not known	23	
		389

Revenue.

From the Province of Ontario	$4,503 65
From the City of Ottawa	845 00
From the County of Carleton	500 00
From other Municipalities	225 00
From patients themselves for maintenance and treatment	1,910 06
Income from endowments	41 70
Subscriptions, donations, and bequests of private individuals	4,077 77
From other sources not enumerated	90 65
Total	$12,193 83

Expenditures.

Butchers' meat	$ 797 07
Butter	318 33
Flour, bread, meal	460 29
Milk	626 80
Tea and coffee	129 49
Potatoes and other vegetables	107 60
Groceries and provisions not enumerated	336 59
Drugs and medicines	686 29
Surgical instruments	.. ...
Beer, wine and spirits	205 78
Bedding, napery, and general house furnishing	323 17
Brooms, brushes, mops, soap, and cleaning appliances	7 63
Fuel	1,003 07
Light—gas, oil, and candles	63 04
Water supply	160 93
Hay and straw	24 00
Clothing for patients	20 00
Ice	10 00
Salaries and wages	2,905 41
Taxes and insurance	.....
Coffins and funerals	125 00
Contingencies	500 35
Repairs, ordinary	304 11
Printing, postage and stationery	.....
Total	$9,114 95

Government grant for 1888.

Allowance for Hospital cases, 14,495 days at 20 cents	$2,899 00
Supplementary allowance, 14,495 days at 10 cents	1,449 50
Allowance for improper cases for Hospital treatment, 3,660 days at 7 cents	256 20
Total	$4,604 70

INSPECTION.

Copies of the reports made to the Government by Mr. Christie upon this Hospital, are annexed :—

"I made an inspection of the General Hospital, Ottawa, on the 4th May, when there were 29 male and 20 female patients under treatment, making a total of 49.

"Four of this number were in an isolated building, three being cases of diphtheria, and the other was suffering from erysipelas.

"I found the wards in excellent order, and every indication that the patients were receiving kindly and proper treatment.

"Some delay had occurred in making detailed entries respecting the patients. I called attention to the matter, and trust for the future it will be promptly attended to."

"I made an inspection of the Protestant Hospital, Ottawa, on the 7th September. There were on that day, 50 patients, 21 males and 19 females under treatment, all of whom appeared to have good attention and good care bestowed upon them.

"No change worthy of note has occurred in regard to the routine operations in this Institution since the date of my last visit.

"The Hospital was very clean and tidy throughout, all matters relating to its operation were being conducted in a very satisfactory manner, and with the exception of certain plumbing defects noticed in the closet and wash-room, to which attention was called, the Hospital was found to be in a very creditable condition."

GENERAL ROMAN CATHOLIC HOSPITAL, OTTAWA.

The following summaries shew the operations of this Hospital during the official year.

Movements of patients.

Number under treatment, 1st October, 1886	37	
Admitted	572	
Total number under treatment		609
Discharged	529	
Died	45	
Under treatment, 30th September, 1887	35	
		609

Places received from.

From the City of Ottawa	443	
From the County of Carleton	84	
From other Counties in the Province	35	
From the United States	3	
From other countries	44	
		609

Sex.

Male	302	
Female	307	
		609

Nationalities.

Canadian	362	
English	37	
Irish	161	
Scotch	15	
United States	18	
Other countries	16	
	——	609

Religious Denominations.

Protestants	17	
Roman Catholic	590	
Other religions	2	
	——	609

Revenue.

From the Province of Ontario	$3,470 06
From the City of Ottawa	800 00
From the County of Carleton	200 00
From paying patients	2,171 05
From income from investments	150 00
From subscriptions, bequests and donations of private individuals	669 93
From other sources, not enumerated	1,682 71
Total	$9,143 75

Expenditures.

Butcher's meat	$1,115 29
Butter	645 92
Flour, bread and meal	454 56
Milk	210 72
Tea and coffee	192 55
Potatoes and other vegetables	341 58
Groceries and provisions, not enumerated	583 82
Drugs and medicines	383 69
Medical and surgical appliances	.....
Beer, wine and spirits	68 10
Bedding, napery and general house furnishings	219 04
Brooms, brushes, mops, soap and cleaning appliances	39 85
Fuel	297 26
Light—gas, oil and candles	47 64
Water supply	79 00
Hay and straw	.....
Clothing for patients, including boots and shoes	201 91
Ice	10 00
Salaries and wages	545 92
Taxes and insurance	269 70
Coffins and funerals	.....
Contingencies	412 14
Repairs, ordinary	600 42
Total	$6,719 11

Government grant for 1888.

Allowance for Hospital cases, 14,681 days at 20 cents	$2,936 20
Supplementary allowance equal to one-fourth of Hospital Revenue	1,418 42
Allowance for improper Hospital cases, 493 days at seven cents	34 51
Total	$4,389 13

INSPECTION.

Copies of the reports made to the Government by Mr. Christie, upon this Hospital are annexed:—

"I made an inspection of the Roman Catholic Hospital, Ottawa, on the 4th May, and saw the 18 patients then under treatment.

"I found the dormitories and other apartments in excellent order; the books, also, were neatly and properly kept.

"I made an inspection of the Roman Catholic Hospital, Ottawa, on the 17th September.

"The patients then under treatment numbered 31; 12 males and 19 females.

"The records show that the work of this Institution has been increased to some extent during the current year, 49 more patients have been treated during current year, as compared with previous one.

"No other change worthy of note has occurred in the working of this Institution since my last visit.

"I found the Hospital in excellent order, and the books properly and neatly kept."

HOUSE OF MERCY LYING-IN HOSPITAL, OTTAWA.

The following summaries shew the operations of this hospital during the official year:—

Movements of patients.

Number under treatment 1st October, 1886	25	
Admitted	144	
Births in the Hospital	130	
Total number under treatment		299
Discharged	235	
Died	36	
Under treatment 30th September, 1887	28	
		299

Places received from.

From the City of Ottawa	86	
From the County of Carleton	31	
From other counties in the Province	122	
From the United States	6	
From other countries	54	
		299

Sex.

Males	56	
Females	243	
		299

Nationalities.

Canadian	86	
English	31	
Irish	122	
Scotch	6	
Other countries	54	
		299

Religious Denominations.

Protestants	108	
Roman Catholics	189	
Other Religions	2	
		299

Revenue.

From the Province of Ontario	$1,925 88
From paying patients themselves	923 68
Income from investments	84 25
From subscriptions and donations	1,974 40
From other sources	2,252 46
Total	$7,160 67

Expenditure.

Butchers' meat	$544 52
Butter	171 25
Flour, bread, and meal	298 22
Milk	218 06
Tea and coffee	69 86
Potatoes and other vegetables	125 71
Groceries and provisions not enumerated	349 71
Drugs and medicines	61 90
Beer, wine and spirits	40 07
Bedding, napery, and general house furnishings	253 33
Brooms, brushes, mops, soap, and cleaning appliances	48 87
Fuel	396 60
Light—gas, oil, and candles	47 27
Water	121 68
Hay and straw	122 33
Clothing for patients, including boots and shoes	127 20
Ice	20 00
Salaries and wages	485 44
Taxes and insurance	11 79
Coffins and funerals	16 73
Contingencies	8 00
Repairs, ordinary	148 56
Total expenditure for maintenance	$3,687 37
For addition to buildings	4,315 45
Total	$8,002 82

Government grant for 1888.

Allowance for Hospital cases 4,868 days, at 20 cents -	$973 60
Supplementary allowance, 4,868 days at 10 cents - -	486 80
Allowance for improper cases for Hospital treatment, 4,187 days, at 7 cents - - - - - -	293 09
Total - - - - - - - - -	$1,753 49

Copies of the reports made to the Government upon this Hospital by Mr. Christie are annexed:—

"I made an inspection of the House of Mercy Lying-in Hospital, Ottawa, on the 5th May.

"There were then thirty-three inmates in residence, six of whom had reached maternity, and the others were awaiting confinement. There were also six infants under the care of their mothers.

"At the beginning of the current year there were 19 women in residence, and 93 have been admitted since.

"Internally and externally, the premises were found to be scrupulously clean and neat, and system and order were apparent in the management.

"The books also were neatly and correctly kept.

"I made an inspection of the Lying-in Hospital, Ottawa, on the 7th Sept.

"There were 20 patients in the institution on the day of my visit. Nineteen were awaiting their maternity, and a mother and infant were being cared for.

"I found the Hospital thoroughly clean, in excellent order throughout, and the books properly kept.

GENERAL HOSPITAL, LONDON.

The following summaries shew the operations of this Hospital during the official year:—

Movements of Patients.

Number under treatment, 1st October, 1886 - -	58	
Admitted - - - - - - - - -	474	
Births in the Hospital - - - - - -	32	
Total number under treatment - - -	——	564
Discharged - - - - - - - - -	478	
Died - - - - - - - - -	38	
Under treatment, 30th September, 1887 - - -	48	
	——	564

Places received from.

From the City of London - - - - - -	424	
From the County of Middlesex - - - -	74	
From other counties in the Province - - - -	66	
	——	564

Sex.

Male - - - - - - - - - -	345	
Female - - - - - - - - - -	219	
	——	564

Nationalities.

Canadian	245	
English	146	
Irish	95	
Scotch	38	
United States	18	
Other countries	22	
		564

Religious Denominations.

Protestant	438	
Roman Catholic	126	
		564

Revenue.

From the Province of Ontario	$5,670 30
From the City of London	7,211 34
From the County of Middlesex, in payment for patients	2,826 36
From paying patients themselves	2,202 33
From income from property or investments	454 47
Total	$18,364 80

Expenditure.

Butchers' meat	$2,129 29
Butter	559 20
Flour, bread and meal	576 54
Milk	959 94
Tea and coffee	318 63
Potatoes and other vegetables	353 35
Groceries and provisions not enumerated	1,514 31
Drugs and medicines	926 33
Surgical instruments	191 13
Medical and surgical appliances	270 50
Beer, wine and spirits	383 46
Bedding, napery and general house furnishings	1,796 49
Brooms, brushes, mops, soap and cleaning appliances	246 81
Fuel	1,352 51
Light—gas, oil and candles	570 05
Water	100 00
Hay and straw	53 90
Clothing for patients	10 00
Ice	.....
Salaries and wages	3,898 82
Taxes and insurance	10 00
Coffins and funerals	.....
Contingencies	260 70
Repairs, ordinary	721 20
Total expenditure for maintenance	$17,203 16
Extra ordinary repairs, alterations and additions to buildings, etc.	1,161 64
Total expenditure	$18,364 80

Government grant for 1888.

Allowance for hospital cases, 17,834 days at 20 cents	$3,566 80
Supplementary allowance, 17,834 days at 10 cents -	1,783 40
Allowance, improper cases for hospital treatment, 4,558 days at 7 cents - - - - - -	319 06
Total - - - - - - - -	$5,669 26

INSPECTION.

Copies of the reports made by me to the Government are annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the General Hospital, London, on the 13th July, when there were 28 males, 23 females and 4 children in residence, making a total of 55.

"I found the institution to be in its usual condition. A new hardwood floor had been laid with rough, improperly planed lumber in a part of the long ward, the old pine floor on each side having been left, making on the whole as uncouth and unsatisfactory a job of work as could well be imagined. Old iron bedsteads with broken castors, etc., are to be found in the wards.

"Altogether, I regret to say, that a visit to this Hospital is not calculated to raise one's opinion of the municipal management of such institutions. At the same time I do not wish to be understood as having any complaint to make of the officers in charge of this hospital, as they are doing the best they can with the material at their disposal."

"I beg to report for the information of His Honor the Lieutenant-Governor in Council that I made an inspection of the General Hospital, London, on the 28th October.

"The patients in residence on that date numbered 30 males, 19 females and 2 children, making a total of 51.

"While the Hospital has very much improved in its condition, it is still very unsatisfactory, and, I fear, will always be so in the present premises without a a very considerale expenditure in the way of alterations, which, perhaps, would not be justified under the circumstances, as the building is not well adapted for Hospital purposes. The heating arrangements are defective, there being only one boiler, and it is so small that it has to be driven to its full capacity when the weather is at all cold, and in event of an accident happening to this boiler, the hospital would be left without any means of heating while the repairs were being made.

"The laundry is also in a very unsatisfactory shape. It is, perhaps, without exception, the worst equipped laundry there is in any institution in the country.

"The resident officers charged with the management of the hospital are doing their work in as efficient a manner as it can be done under the circumstances. There is very urgent need for another and a better Hospital in the City of London."

GENERAL AND MARINE HOSPITAL, ST. CATHARINES.

The following summaries shew the operations of this Hospital, during the official year:—

Movements of patients.

Number under treatment, 1st October, 1886	18	
Admitted	187	
Births in Hospital	9	
Total number under treatment		214
Discharged	185	
Died	11	
Under treatment, 30th September, 1887	18	
		214

Places admitted from.

From the City of St. Catharines	101	
From the County of Lincoln	55	
From other counties in the Province, and sailors	50	
From the United States	4	
From other countries	4	
		214

Sex.

Male	143	
Female	71	
		214

Nationalities.

Canadian	94	
English	34	
Irish	60	
Scotch	10	
United States	9	
Other countries	7	
		214

Religious Denominations.

Protestant	140	
Roman Catholic	74	
		214

Revenue.

From the Province of Ontario	$2,039 92
From the Dominion Government	1,000 00
From the City of St. Catharines	600 00
From the County of Lincoln	.....
From endowments, investments, etc	18 84
From patients themselves, for maintenance and treatment	849 70
From subscriptions, bequests and donations of private persons	1,952 87
Total	$6,461 33

Expenditure.

Butcher's meat	$ 427 54
Butter	104 56
Flour, bread and meal	255 70
Milk	292 44
Tea and coffee	50 00
Potatoes and other vegetables	169 63
Groceries and provisions, not enumerated	283 06
Drugs and medicines	426 73
Medical and surgical appliances	8 74
Beer, wine and spirits	24 25
Bedding, napery and general house furnishings	104 69
Brooms, brushes, mops, soap and cleaning appliances	56 67
Fuel	424 73
Light—gas, oil and candles	51 43
Water supply	12 00
Hay and straw	8 35
Ice	.....
Salaries and wages	1,740 00
Taxes and Insurance	7 59
Contingencies	52 64
Coffins and funerals	.....
Repairs, ordinary	108 22
Total	$4,608 97

Government grant for 1888.

Allowance for Hospital cases 6,653 days at 20 cents	$1,330 60
Supplementary allowance, 6,653 days at 10 cents	665 30
Allowance for improper cases for Hospital treatment, 504 days at 7 cents	35 28
Total	$2,031 18

INSPECTION.

Copies of the reports made by me to the Government, are annexed:—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made and inspection of the General and Marine Hospital, St. Catharines, on the 8th November.

"There were 11 adult males, 8 adult females, and 5 children in the Hospital on that day, making a total of 24 patients.

"The Institution was found to be in its usual condition of good order in all respects. There is only one thing to be complained of, and that is the use of the common female ward for lying-in purposes, which is very objectionable. It appeared that not very long ago a female patient was confined in this ward with three or four young patients lying in contiguous beds; this practice should not be continued.

"There was formerly a detached cottage which was used for lying-in purposes, and if it is found impracticable to use this now some other arrangement should be

made to obviate the necessity of every female inmate of the Hospital being present on such occasions.

"I made an inspection of the General and Marine Hospital, St. Catharines, on August 8th, 1887, there were then 9 patients in residence, 2 males and 7 females.

"The Hospital was clean, neat and in good order throughout, and the books properly kept."

GENERAL HOSPITAL, GUELPH.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1886	12	
Admitted	181	
Births in the Hospital	7	
Total number under treatment	——	200
Discharged	166	
Died	14	
Under treatment, 30th September, 1887	20	
	——	200

Places received from.

City of Guelph	97	
County of Wellington	83	
Other counties in the Province	20	
	——	200

Sex.

Male	130	
Female	70	
	——	200

Nationalities.

Canadian	97	
English	43	
Irish	13	
Scotch	37	
United States	8	
Other countries	2	
	——	200

Religious Denominations.

Protestant	180	
Roman Catholic	20	
	——	200

Revenue.

Received from the Province of Ontario	$1,676 66
From the City of Guelph	1,000 00
From the County Wellington	1,000,00
From paying patients	786 50
Subscriptions, donations, etc.	477 58
From sources not enumerated	116 68
Total	$5,057 42

Expenditure.

Butchers' meat	$480 15
Butter	132 67
Flour, bread, and meal	153 37
Milk	37 96
Tea and coffee	83 42
Potatoes and other vegetables	55 31
Groceries and provisions not enumerated	514 70
Drugs and medicines	360 03
Surgical instruments	.....
Beer, wine, and spirits	131 75
Bedding, napery, and general house furnishings	362 01
Brooms, brushes, mops, etc.	41 51
Fuel	628 47
Light—gas, oil, and candles	79 81
Water supply	32 40
Hay and straw	11 75
Clothing	8 64
Ice	10 00
Salaries and wages	1,382 87
Contingencies	233 85
Repairs, ordinary	189 75
Interest and rent	90 00
Total	$5,020 43

Government grant for 1888.

Allowance for Hospital cases, 7,069 days at 20 cents	$1,413 80
Supplementary allowance, 7,069 days at 10 cents	706 90
Allowance for improper cases for Hospital treatment 265 days at 7 cents	18 55
Total	$2,139 25

INSPECTION.

A copy of the report made by me to the Government is annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I inspected the General Hospital, Guelph, on the 28th July.

"The patients numbered on that day ten males and five females.

"The wards were neatly kept and the general condition of the institution was very satisfactory.

"A new wing is in course of erection which will increase the capacity of the hospital considerably.

ST. JOSEPH'S HOSPITAL, GUELPH.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1866	15	
Admitted	212	
Total number under treatment		227
Discharged	191	
Died	7	
Under treatment, 30th September, 1887	29	
		227

Places admitted from.

City of Guelph	77	
County of Wellington	83	
Other counties	55	
Other countries	12	
		227

Sex.

Male	83	
Female	144	
		227

Nationalities.

Canadian	118	
English	12	
Irish	82	
United States	2	
Other countries	13	
		227

Religious Denominations.

Protestant	24	
Roman Catholic	203	
		227

Revenue.

From the Province of Ontario	$2,020 64
From the City of Guelph	200 00
From the County of Wellington	800 00
From paying patients	789 00
Income from property	300 00
Subscriptions, donations, etc.	272 00
Other sources	132 00
Total	$4,513 64

Expenditures.

Butchers' meat	$470 81
Butter	100 00
Flour, bread and meal	188 34
Milk	90 00
Tea and coffee	138 90
Potatoes and other vegetables	98 30
Groceries and provisions not enumerated	684 00
Drugs and medicines	497 05
Beer, wine and spirits	143 45
Bedding, napery and general house furnishings	377 85
Brooms, brushes, mops, soap and cleaning appliances	126 62
Fuel	310 00
Light—gas, oil and candles	45 00
Hay and straw	105 00
Clothing for patients	45 00
Ice	4 50
Salaries and wages	173 50
Taxes and insurance	.....
Contingencies	280 10
Repairs, ordinary	262 26
Total	$4,140 68

Government grant for 1888.

Allowance for Hospital cases 7,911 days at 20 cents	$1,582 20
Supplementary allowance of one-fourth of Hospital revenue	623 25
Total	$2,205 45

INSPECTION.

A copy of the report made by me to the Government is annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council that I inspected the St. Joseph's Hospital, Guelph, on the 29th July, on which occasion there were eight male and sixteen female patients in residence, —total twenty-four.

"The inspection shewed that this hospital continued in its prosperous career, everything about it being of the most satisfactory character.

"Since my last visit a new laundry has been added to the institution which will greatly increase the efficiency of the working of the hospital.

GENERAL HOSPITAL, PEMBROKE.

The following summaries shew the operations of this Hospital during the official year:

Movements of patients.

Number under treatment, 1st October, 1886	6	
Admitted	104	
Total number under treatment		110
Discharged	93	
Died	8	
Under treatment, 30th September, 1887	9	
		110

Places received from.

From the Town of Pembroke	40	
From the County of Renfew	34	
Other Counties	31	
United States	...	
Other countries	5	
		110

Sex.

Male	61	
Female	49	
		110

Nationalities.

Canadian	73	
English	4	
Irish	26	
Scotch	...	
United States	2	
Other countries	5	
		110

Religious denominations.

Protestant	16	
Roman Catholic	94	
		110

Revenue.

From the Province of Ontario	$837 90
From the Dominion Government	90 00
From the County of Renfrew	250 00
From paying patients themselves	557 87
From subscriptions, bequests, and donations of private individuals	928 63
Total	$2,664 40

Expenditure.

Butchers' meat	$337 76
Butter	106 90
Flour, bread and meal	134 45
Milk	58 80
Tea and Coffee	78 00
Potatoes and other vegetables	72 22
Groceries and provisions not enumerated	233 10
Drugs and medicines	122 90
Beer, wine and spirits	17 50
Bedding, napery, and general house furnishings	106 74
Brooms, brushes, mops, soap, and cleaning appliances	31 90
Fuel	393 00
Light—gas, oil and candles	64 45
Water Supply	26 31
Hay and straw	86 05
Clothes for patients, including boots and shoes	100 84
Ice	6 00
Salaries and wages	204 00
Taxes and insurance	185 00
Coffins and funerals	24 00
Contingencies	35 50
Repairs, ordinary	84 70
Total	$2,510 12

Government grant for 1888.

Allowance for Hospital cases, 3,504 days at 20 cents	$700 80
Supplementary allowance, 3,504 days at 10 cents	350 40
Allowance for improper cases for Hospital treatment, 217 days at 7 cents	15 19
Total	$1,066,39

INSPECTION.

A copy of the report made by Mr. Christie, to the Government, is annexed:—

"I made an inspection of the General Hospital, Pembroke, on the 6th May. There were 12 patients in residence on that day, viz.: 8 males and 4 females, who were afflicted with various diseases, and under active treatment therefor.

"The total number of patients who have been under treatment during the current year is considerably in excess of the corresponding period of last year, and it was represented that the increase was caused by an unusual number of sufferers from the eastern, or Quebec, side of the Ottawa River, availing themselves of the treatment to be had in the Institution.

"All the patients appeared to be receiving proper care and consideration, and the wards were in good order. The books also were correctly kept."

Mr. Christie instructed Mr. Yeigh to make the second inspection of this Hospital; he reported as follows:—

"Acting under instructions from the Inspector of Prisons, I have to-day made an inspection of the Pembroke General Hospital. I found 9 patients under treatment, viz.: 5 males and 4 females, all of whom were evidently well cared for. The Hospital was scrupulously clean and well kept, and its general condition entirely satisfactory."

GENERAL HOSPITAL, MATTAWA.

The following summaries shew the operations of this Hospital during the official year:—

Movement of patients.

Number under treatment, 1st October, 1886	8	
Admitted	180	
Total number under treatment	—	188
Discharged	163	
Died	6	
Under treatment, 30th September, 1887	19	
	—	188

Places received from.

From the Village of Mattawa	20	
From the County of Renfrew	126	
From other counties in the Province	28	
United States	14	
	—	188

Sex.

Male	124	
Female	64	
	—	188

Nationalities.

Canadian	120	
English	12	
Irish	39	
Scotch	6	
United States	7	
Other countries	4	
	—	188

Religious Denominations.

Protestant	30	
Roman Catholic	155	
Other religions	3	
	—	188

Revenue.

From the Province of Ontario	$ 687 30
From patients for maintenance and treatment	559 75
From subscriptions, bequests and donations of private persons	1,204 89
Total	$2,451 94

Expenditure.

Butcher's meat	$ 300 00
Butter	100 00
Flour, bread and meal	275 50
Milk	10 00
Tea and coffee	60 00
Potatoes and other vegetables	100 50
Groceries and provisions, not enumerated	125 60
Drugs and medicines	60 00
Beer, wine and spirits	30 00
Bedding, napery and general house furnishings	125 65
Brooms, brushes, etc	16 30
Fuel	375 75
Light—gas, oil and candles	25 00
Hay and straw	75 00
Clothing for patients	15 50
Ice	10 00
Salaries and wages	325 00
Coffins and funerals	24 00
Repairs, ordinary	100 65
Contingencies	90 00
Total	$2,244 45

Government grant for 1888.

Allowance for Hospital cases 3,939 days at 20 cents	$787 80
Supplementary allowance of 10 cents per day	393 90
Total	$1,181 70

INSPECTION.

Mr. Christie instructed Mr. Yeigh to make an inspection of this Hospital, August 3rd, 1887; he reported as follows:—

"Acting under the instructions of the Inspector of Prisons, I have made a visit to-day to the Mattawa General Hospital, finding only three male patients, who were comfortably attended to and under good treatment, and everything about the Hospital was in proper condition."

THE JOHN H. STRATFORD HOSPITAL, BRANTFORD.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1886	20	
Admitted	236	
Births in the Hospital	9	
Total number under treatment		265
Discharged	209	
Died	21	
Under treatment, 30th September, 1887	35	
		265

Places admitted from.

From the City of Brantford	192	
From the County of Brant	62	
Other counties	11	
		265

Sex.

Male	153	
Female	112	
		265

Nationalities.

Canadian	152	
English	67	
Irish	24	
Scotch	8	
United States	10	
Other countries	4	
		265

Religious Denominations.

Protestant	231	
Roman Catholic	34	
Other religions, or not known	....	
		265

Revenue.

From the Province of Ontario	$1,981 32
From the City of Brantford	2,500 00
From patients for maintenance and treatment	1,274 24
From subscriptions, donations and bequests from private individuals	5 00
Total	$5,760 56

Expenditure.

Butchers' meat	$ 422 53
Butter	143 41
Flour, bread and meal	182 87
Milk	276 27
Tea and coffee	49 89
Potatoes and other vegetables	50 25
Groceries and provisions not enumerated	202 22
Drugs and medicines	198 62
Medical and surgical appliances	.....
Surgical instruments	.....
Beer, wine and spirits	31 92
Bedding, nappery, and general house furnishings	419 95
Brooms, brushes, mops, soap and cleaning appliances	37 35
Fuel	591 05
Light—gas, oil and candles	62 46
Water supply	.....
Hay and straw	.....
Clothing for patients, including boots and shoes	.....
Ice	25 95
Salaries and wages	1,366 00
Taxes and insurance	.....
Coffins and funerals	83 00
Contingencies	230 82
Repairs, ordinary	229 91
	$4,604 47

Government grant for 1888.

Allowance for Hospital cases, 7,324 days at 20 cents	$1,464 80
Supplementary allowance, 7,324 days at 10 cents	732 40
Allowance for improper cases for Hospital treatmant 417 days at 7 cents	29 19
Total	$2,226 39

INSPECTION.

A copy of the report made by me upon this Hospital to the Government is annexed :—

"I beg to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the John H. Stratford Hospital, Brantford, on the 9th November and found 12 males, 9 females and 1 child in residence.

"This hospital continues its upward march, and bids fair to become first-class in every respect. On every visit I find marks of progress and of the interest taken in its welfare by those who have it in charge.

"Of the 22 patients in the house on the day of my visit, 11 were typhoid fever cases. Knowing something as I do of the sanitary condition of Brantford

with its insufficient water supply, and the absence of a sewage system, I enquired with some interest into these cases of typhoid under treatment. The first typhoid case of the season was admitted on the 29th July or 1st August, since then there has been a total number of 64 patients admitted of whom no less than 37 were typhoid cases. So many cases of typhoid in the space of three months in a small town like Brantford, and constituting more than half the work of the hospital, tells a terrible tale."

ST. JOSEPH'S HOSPITAL, PORT ARTHUR.

The following summaries shew the operations of this Hospital during the official year :—

Movements of Patients.

Number under treatment, 1st October, 1886	7	
Admitted	102	
Births in the Hospital	.....	
Total number under treatment		109
Discharged	88	
Died	9	
Under treatment, 30th September, 1887	12	
		109

Places admitted from.

From the town of Port Arthur	39	
From the Canada Pacific Railway	33	
From other parts of the Province	31	
From other countries	6	
		109

Sex.

Male	96	
Female	13	
		109

Nationalities.

Canadian	33	
English	27	
Irish	18	
Scotch	9	
United States	3	
Other countries	19	
		109

Religious Denominations.

Protestant	54	
Roman Catholic	54	
Other denominations	1	
		109

Revenue.

From the Province of Ontario	$573 00
From the Town of Port Arthur	350 00
From other municipalities in the Province	.....
From paying patients themselves	492 00
From subscriptions, donations, etc.	225 00
Total	$1,640 00

Expenditures.

Butchers' meat	$255 40
Butter	68 00
Flour, bread and meal	137 00
Milk	79 00
Tea and coffee	57 00
Potatoes and other vegetables	52 00
Groceries and provisions not enumerated	107 00
Drugs and medicines	200 00
Surgical instruments	8 00
Beer, wine and spirits	96 00
Bedding, etc	270 00
Brooms, brushes, mops, soap and cleaning appliances	41 00
Fuel	136 00
Light—gas, oil and candles	45 00
Water supply	34 00
Clothing for patients, including boots and shoes	.....
Salaries and wages	179 00
Taxes and insurance	.....
Coffins and funerals	18 00
Contingencies	85 00
Repairs, ordinary	156 00
Total	$2,023 40

Government Grant for 1888.

Allowance for Hospital cases, 3,153 days at 20 cents	$630 60
Supplementary allowance of one-fourth of Hospital revenue	266 75
Total	$897 35

BELLEVILLE HOSPITAL.

The following summaries shew the operations of this Hospital during the official year :—

Movements of patients.

Number under treatment, 1st October, 1886	6	
Admitted	80	
Births in Hospital	..	
Total number under treatment		86
Discharged	64	
Died	8	
Under treatment, 30th September, 1887	14	
		86

Places admitted from.

From the City of Belleville	63	
From the County of Hastings	14	
Other counties	9	
		86

Sex.

Male	53	
Female	33	
		86

Nationalities

Canadian	33	
English	18	
Irish	23	
Scotch	4	
United States	7	
Other countries	1	
		86

Religious Denominations.

Protestant	57	
Roman Catholic	29	
Other religions, or not known	..	
		86

Revenue.

From the Province of Ontario	$ 87 00.
From the City of Belleville	280 00
From the County of Hastings	57 00
From patients for maintenance and treatment	349 25
From subscriptions, donations and bequests from private individuals	689 13
From other sources	688 41
Total	$2,150 79

Expenditures.

Butchers' meat	$108 61
Butter	56 94
Flour, bread and meal	73 58
Milk	67 89
Tea and coffee	12 00
Potatoes and other vegetales	36 55
Groceries and provisions not enumerated	80 77
Drugs and medicines	62 16
Medical and Surgical appliances	11 00
Beer, wine and spirits	6 76
Bedding, napery and general house furnishings	275 76
Brooms, brushes, mops, soap and cleaning appliance	30 74
Fuel	100 00
Light—gas, oil and candles	30 98
Water	22 43
Hay and straw	6 60
Clothing for patients	12 00
Ice supply	5 00
Salaries and wages	583 75
Taxes and insurance	23 00
Contingencies	32 38
Repairs, ordinary	55 47
Total	$1,694 37

Government grant for 1888.

Allowance for Hospital cases 3,632 days at 20 cents	$726 40
Supplementary allowance 3,632 days at 10 cents	363 20
Allowance for improper cases for Hospital treatment 167 days at 7 cents	11 69
Total	$1,101 29

INSPECTION.

Copies of the reports made by Mr. Christie upon this Hospital to the Government are annexed :—

"I beg to report for the information of His Honour the Lieutenant Governor in Council that I made an inspection of the Belleville Hospital on the 28th April.

"There were fourteen patients then under treatment, 10 males and 4 females.

"There have been 44 cases under treatment since the opening of the Institution, and the management appear to be getting matters well systematised, and in good order. The medical attendance has been prompt and successful.

"Some of the internal arrangements were noticed to be defective, more particularly the water-closets on the lower and upper floors. These are imperfectly ventilated, and have an insufficient water supply, More modern and improved fixtures should be introduced, otherwise mischief may result.

"I found the building in a cleanly and well kept condition and apart from the defect referred to, it was in good order throughout.

"I have the honour to report for the information of His Honour the Lieutenant-Governor in Council, that I made an inspection of the Belleville Hospital on the 20th July.

"On that day there were eleven patients under treatment, namely, six males and five females. Since the beginning of the present year there have been 59 patients under the care of this Institution, and the regular visits of the attending physicians were noted.

"I found the Hospital in excellent order throughout, a considerable number of small improvements have been added since the date of my last visit. In the absence of a sufficient supply of water the Hospital authorities are anxiously awaiting the time when the city's waterworks system will be available, which it is expected will be about the end of the present year. Notwithstanding the felt want in this regard, the apartments throughout the interior of the building were scrupulously clean.

It was noted that there were no cards in use to show the date of admission, place of residence, nature of disease, etc., etc. Cards giving such information should be attached to the beds of the patients, and attention was called to the desirability of having them supplied.

STATEMENT

Of the Returns forwarded to the Office of the Provincial Secretary, of all the Fees and Emoluments received by the Registrars of Ontario for the year 1887, made in accordance with the provisions of the Revised Statutes of Ontario, Chapter 111, Section 97, and 43 Vic. Chapter 3, Section 2, with which are contrasted Receipts of same nature in 1885 and 1886.

By Command,

ARTHUR S. HARDY,

Secretary.

Provincial Secretary's Office,
Toronto, March 5th, 1888.

STATEMENT of the Returns forwarded to the Office of the Provincial Secretary of all the accordance with the provisions of the Revised Statutes of Ontario, chap. 111, sec. 97, and

OFFICE.	REGISTRAR.	Number of Municipalities in the District.	Number of Instruments registered during the year '86.	Number of Instruments registered during the year '87.	Amount of Fees received sections 1-12, Total Registrations under sub-sections 1, 6, 11, 12.	For searches, sub-sections 2, 3, 10.	For Abstracts, sub-section 4.
					$ c.	$ c.	$ c.
Algoma	Thos. A. P. Towers, Dep. Reg) Mun.	12					
	Tps.	74	.....	1011	1374 10	217 75	155 44
Brant	Thos. S. Shenston..	7	2441	2510	3442 80	396 20	338 70
Bruce	Donald Sinclair	27	3610	4046	5363 50	291 05	1190 35
Carleton	Patrick J. Coffey	11	2267	2298	3183 85	469 95	573 85
Dufferin	William McKim	8	1691	1862	1687 35	251 70	577 55
Dundas	Simon S. Cook.,	6	1213	1174	1503 30	105 25	78 95
Durham, E. R.	George C. Ward	5	782	751	2128 65	200 00	171 15
Durham, W. R.	Robert Armour	5	833	879	1304 56	103 15	264 35
Elgin	A. McLaughlin	12	3584	3388	4426 75	260 30	328 90
Essex	J. Wallace Askin	19	3889	3884	5107 77	629 05	924 20
Frontenac	R. M. Rose	18	1325	1494	2208 74	256 58	303 71
Glengarry	Angus McDonald	5	1388	1008	1348 55	130 05	112 60
Grenville	Patrick McCrae	9	1327	1329	1779 10	119 15	234 00
Grey, N. R.	Robert McKnight..	12	2773	2869	4056 45	248 60	845 45
Grey, S. R.	Thomas Lauder	8	1959	2131	2620 25	92 35	503 35
Haldimand	Geo. Sackville Colter (Dep. Reg.)	13	1767	1547	2127 06	200 94	320 71
Haliburton	Frederick Mooney	9	207	217	301 85	24 80	87 25
Halton	Francis Barclay	9	1300	1307	1708 90	360 15	182 00
Hastings	Wm. Hamilton Ponton	28	3462	3396	4761 70	352 95	1113 90
Huron	James Dickson	24	4213	4466	5644 30	330 15	1301 90
Kingston, City	James P. Gildersleeve	1	696	853	1184 85	232 15	43 65
Kent	Peter D. McKellar	17	4664	4234	5716 10	575 70	1096 35
Lambton	Edward M. Proctor	20	4727	5588	6780 15	1060 80	700 60
Lanark, N. R.	John Menzies	9	830	724	1048 20	73 55	82 20
Lanark, S. R.	James Bell	10	1345	1406	1877 15	209 15	118 60
Leeds	William H. Cole	14	2212	2304	3235 25	193 30	534 10
Lennox and Addington	Stephen Gibson	12	1509	1587	2191 65	206 90	420 14
Lincoln	James Geo. Currie	14	1671	1982	2727 70	259 20	736 30
London, City	Wm. C. L. Gill	1	1385	1644	2143 30	448 85	291 40
Middlesex, E. & N. R.	John Walker	14	3023	3365	4509 50	928 80	463 40
Middlesex, W. R.	Stephen Blackburn	9	1440	1385	2015 15	247 30	484 75
Muskoka District	John E. Lount	24	1066	1147	1525 65	205 70	275 60
Nipissing District	William Dorau	52	122	275	392 00	13 85	20 75
Norfolk	Augustine J. Donly	10	2198	2159	3017 05	350 35	381 65
Northumberland, E. R.	John M. Grover	9	1410	1371	1995 90	161 35	977 35
Northumberland, W. R.	Wm. H. Eyre	5	749	882	1148 70	90 80	274 10
Ontario	John Ham Perry	17	2628	2580	3385 60	206 35	402 50
Ottawa, City	Alexander Burritt	1	1616	1581	2257 70	452 05	237 70
Oxford	George R. Pattullo	16	3479	3442	4933 75	512 36	951 20
Parry Sound District	Arthur Starkey	44	956	843	1279 15 861 80	109 85 80 10	268 20 109 15
Peel	James Fleming	8	1604	1645	1450 90	151 40	269 90
Perth, N. R.	David D. Hay	9	1961	2271	2829 20	210 05	501 90
Perth, S. R.	Patrick Whelihan	7	1084	1159	1546 05	80 35	332 45

* Included under sub-sections 1, 6, 11, 12. (1) This is the net

Fees and Emoluments received by the Registrars of Ontario for the year 1887, made in 43 Vic., ch. 3, sec. 2, with which are contrasted Receipts of same nature in 1885 and 1886.

under the Tariff as allowed by sub-section 92 of the Act.									
		Special Receipts.							
For Certificates, sub-section 5.	For Affidavits and Oaths, sub-section 9.	For Abstracts, Indices, sub-sec 8.	For work connected with transfers of Instruments paid by Co Treas. ss. 7	Gross amount of Fees proper for 1885.	Gross amount of Fees proper for 1886.	Gross amount of Fees proper for 1887.	Aggregate amount of Fees and Emoluments earned by Registrar during the year 1887, by virtue of his office.	Amount of Fees actually received for 1887.	Amount of disbursements in connection with office for 1887.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
35 85	.....	.....	12 00	773 25	988 30	1795 14	2595 14	2469 25	843 80
30 90	.....	.....	.....	3834 30	4194 85	4208 60	4208 60	4208 60	1313 44
43 20	.....	.....	.....	6483 42	7036 60	6888 10	6888 10	6640 80	3597 70
58 75	.....	.....	.....	3674 50	4319 60	4286 40	4286 40	4286 40	1023 20
20 00	.....	.....	.....	3172 70	3188 00	3536 60	3536 60	3292 98	1141 40
1 15	175	.....	.....	1497 10	1730 95	1690 40	1690 40	1690 40	630 85
.....	.....	.....	.....	1446 05	1514 95	1499 80	1499 80	1499 80	550 00
.....	.....	.....	.....	1257 90	1590 58	1672 06	1672 06	1672 06	.....
.....	*	.....	.....	6016 15	5546 65	5015 95	5015 95	4621 20	2587 12
261 25	8 25	.....	.....	7268 64	7730 76	6930 52	(1) 2616 06	6930 52	4314 46
.....	.....	.....	.....	2235 46	2282 66	2769 03	2769 03	2370 03	700 00
1 25	5 10	.....	.....	1696 67	1974 16	1597 55	1597 55	958 53	639 02
6 25	7 50	.....	.....	1854 80	2274 50	2146 00	2146 00	2131 00	925 00
44 75	...	.....	.....	5232 10	2875 75	5195 25	5195 25	5195 25	2198 42
32 25	30 85	.....	.....	3016 94	3289 36	3279 05	3279 05	2949 05	905 63
7 50	1 25	.....	.....	2783 56	3068 62	2657 46	2657 46	2626 92	389 30
6 50	1 25	.....	.....	330 20	386 90	421 65	421 65	421 65	.....
11 75	.....	.....	.....	2366 05	2393 60	2262 80	2262 80	2262 80	793 00
49 75	.....	.....	.....	5811 45	6484 20	6278 30	6278 30	5400 35	1700 00
80 10	.....	.....	.....	6784 42	7106 17	7356 45	7356 45	7356 45	4178 22
.....	.....	.....	.....	969 82	1230 40	1460 65	1460 65	1460 65	733 10
71 25	.....	.....	.....	8602 40	8137 20	7459 40	7459 40	7459 40	2385 92
.....	.....	.....	.....	8055 70	8183 67	8541 55	8541 55	8541 55	2831 90
18 50	.....	.....	.....	1275 20	1457 50	1222 50	1222 50	1222 50	475 60
4 80	1 00	.....	28 40	1619 75	2092 85	2239 10	2239 10	2156 15	559 05
9 50	3 25	.....	.....	3466 64	4884 03	3975 40	3975 40	3652 77	1070 65
20 65	.....	.....	.....	2418 85	2426 65	2839 34	2839 34	2705 61	503 80
52 75	.....	.....	.....	3331 05	3345 44	3775 95	3775 95	3775 95	621 03
.....	.....	.....	.....	1929 35	2392 25	2883 55	2883 55	2883 55	775 55
155 20	.....	.....	.....	5211 65	5454 35	6056 90	6056 90	6056 90	1650 00
108 80	.....	.....	.....	2940 20	2737 25	2856 00	2856 00	2856 00	520 00
63 20	11 50	.....	.....	2050 40	1945 95	2081 65	2081 65	1916 65	240 00
25	10 00	.....	.....	270 32	213 45	436 85	436 85	436 85	129 08
49 20	3 25	.....	.....	3810 75	4012 25	3801 50	3801 50	3679 10	1003 00
18 75	.....	.....	.....	3101 40	3280 54	3153 35	3153 35	3054 94	985 50
.....	75	.....	.....	1595 65	1408 94	1414 35	1414 35	1037 40	450 00
22 25	.....	.....	.....	4256 75	4133 95	4016 70	4016 70	3895 85	1611 35
71 90	.....	.....	.....	2809 35	3290 30	3046 05	3046 05	3046 05	872 02
34 00	2 00	122 80		5466 60	6759 25	6556 11	6556 11	6047 75	2175 74
12 50	5 50	.....	.....	1168 30	1793 95	1675 20	1675 20	1509 68	424 21
28 55	.....	.....	.....	.....	.....	1079 40	{ Recived by former Registrar prior to 31st March, 1877.		
63 45	.....	.....	.....	2346 93	2901 10	1905 65	1905 65	1699 68	554 44
27 25	.....	.....	.....	3395 86	3473 60	3568 40	3568 40	3368 40	1550 00
96 90	.....	.....	.....	1907 10	2090 75	2055 75	2055 75	1513 25	716 35

(1) amount. The entry should be $6930.52.

STATEMENT of the Returns forwarded to the Office of the Provincial Secretary year 1887,

OFFICE.	REGISTRAR.	Number of Municipalities in the District.	Number of Instruments registered during the year '86.	Number of Instruments registered during the year '87.	Amount of Fees received sections 1-12, Total Registrations under sub-sections 1, 6, 11, 12.	For searches, sub-sections 2, 3, 10.	For Abstracts, sub-section 4.
					$ c.	$ c.	$ c.
Peterborough	Barnard Morrow	19	1928	2042	2792 20	451 45	647 20
Prescott	John Higginson	9	1474	1494	1937 80	73 25	151 35
Prince Edward	Walter Mackenzie	9	1534	1351	1768 65	189 94	323 16
Rainy River District	Frank J. Ap' John	1	166	84	127 25	11 65	26 95
Renfrew	Andrew Irving	25	1937	1856	2483 00	339 41	195 45
Russell	James Keays	4	1057	1158	1558 80	17 25	371 45
Simcoe	Samuel Lount	25	5385	5234	6804 20	1149 70	
Stormont	John Copeland	5	1447	1422	1865 60	205 90	265 45
Thunder Bay District	W. H. Laird	27	509	520	751 90	253 35	422 49
Toronto, City	Charles Lindsey	1	14243	17639	25816 10	2988 35	2136 50
Victoria	J. L. Dunsford (Dep. Reg.)	14	1849	1986	2651 45	201 10	528 50
Waterloo	Dougald McDougall	13	2990	3097	3425 80	224 65	325 75
Welland	Dexter D. Everardo	15	2124	2366	3096 30	714 85	491 85
Wellington, N. R.	John Anderson	11	1886	1769	2413 15	111 20	946 00
Wellington, S. & C. R.	Nathaniel Higinbotham	11	1997	1998	2628 55	513 55	432 25
Wentworth	James M. Williams	10	4816	4937	6691 80	876 65	1865 50
York, E. & W. R.	John Ridout	13	5230	7387	10447 15	1701 95	894 55
York, N. R.	James J. Pearson	9	1535	1442	1991 25	193 00	403 35

of all the Fees and Emoluments received by the Registrars of Ontario for the etc.—*Continued.*

under the Tariff as allowed by sub- of section 92 of the Act.										
For Certificates, subsection 5.	Special Receipts. For affidavits and Oaths, sub-section 9.	Special Receipts. For Abstracts, Indices, sub-sec8.	Special Receipts. For work connected with transfer of Instruments paid by Co Treas. ss. 7	Gross amount of Fees proper for 1885.	Gross amount of Fees proper for 1886.	Gross amount of Fees proper for 1887.	Aggregate amount of Fees and Emoluments earned by Registrars during the year 1887, by virtue of his office.	Amount of Fees actually received for 1887.	Amount of disbursements in connection with office for 1887.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
14 50	.....	.....	44 70	3547 90	3493 50	3950 05	3950 05	3950 05	1122 85
68 85	.....	.....	.....	2145 95	2335 44	2231 25	2231 25	2231 25	500 00
12 00	5 75	.....	.....	2231 20	2700 23	2299 50	2299 50	2299 50	975 00
3 05	75	.....	.....	.....	267 70	169 65	169 65	169 65	.....
24 35	1 75	.....	.....	3028 85	3309 65	3043 96	3043 96	3043 96	.....
34 75	78 50	.....	.....	1843 33	1958 00	2060 00	2060 00	1782 00	300 00
.....	.....	.....	.....	8110 03	8190 63	7953 90	7953 90	7953 90	3256 00
1 25	3 00	.....	.....	1791 75	2280 60	2341 20	2341 20	2031 36	560 00
.....	.....	.....	.....	1667 00	1432 10	1427 74	1427 74	1127 74	540 00
171 30	.....	.....	1764 00	18277 50	25678 35	31112 25	33664 25	32876 25	24505 11½
.....	.....	.....	.....	3024 46	3377 72	3381 05	3381 05	3170 85	1089 99
27 00	3 00	.....	.....	3439 10	4272 95	4006 20	4274 65	4006 20	1063 00
125 40	.....	.....	.....	4193 75	4373 00	4428 40	4428 40	3900 00	1644 68
47 90	.....	.....	.....	3117 50	3568 80	3519 05	3519 05	3219 05	825 00
116 95	.....	.....	.....	3354 35	3471 60	3684 30	3684 30	3684 30	848 75
28 00	4 25	.....	.....	7559 05	8808 50	9466 20	9466 20	8492 00	5418 10
72 75	.....	.....	741 40	6883 05	9612 60	13116 40	13857 80	13852 80	10240 75
.....	.....	.....	.....	2316 15	2731 75	2587 60	2587 60	2587 60	525 00

REPORT

OF

THE MASTER OF TITLES

FOR THE YEAR 1887.

Presented to the Legislative Assembly,

By command,

ARTHUR S. HARDY,
Secretary.

PROVINCIAL SECRETARY'S OFFICE,
TORONTO, 6th March, 1888.

REPORT OF THE MASTER OF TITLES FOR THE YEAR 1887.

LAND TITLES OFFICE,
TORONTO, March 1st, 1888.

To His Honour,
The Honourable SIR ALEXANDER CAMPBELL,
Lieutenant-Governor of Ontario.

SIR,—I have the Honour to report as follows respecting the operations of "The Land Titles Act":—

The value of lands under the Act on 31st December, 1887, in the County of York and City of Toronto, taken at the valuations placed upon them when they were first registered, was $2,149,358. Since these valuations were made most of the properties have been divided up and sold at prices, probably averaging double the amounts at which they were brought under; dwelling houses and other buildings have also been erected upon many of the lots, so that the actual value of the property at the date named, might, at a very moderate estimate, be taken at $5,000,000.

The provisions of the Act are, I think, growing in favour with the legal profession, and the amendments which came into effect on 1st January of the present year, when the Revised Statutes came into force, have removed objections which had been raised by some solicitors to certain sections, the meaning of which seemed to them open to question.

The authority which, by section 8, is conferred upon a mortgagee who has a right to sell the mortgaged land, to apply to have the mortgagor's title registered under the Act, will, I am persuaded, be found a very useful provision, while section 85, which authorizes the owner of land, or of a charge, to be described as a trustee, without this imposing upon persons dealing with him the duty of enquiring as to his powers, will enable executors and other trustees, when investing in lands and mortgages under the Act, to designate properties and securities belonging to the trust.

During 1887, as in previous years, by far the larger proportion of properties brought under the Act, are lands bought for the purpose of being laid out into lots, and I presume this will continue to be the case until the Assurance Fund reaches a sum that would justify the Government in giving persons applying for "First Registration," the option of either paying the Assurance fee at the time of their application, or permitting it to remain until they desire to deal with the property, in accordance with the system adopted in the new districts.

During the past year no applications have been made to me for registration with a "possessory title." In England, the opinion seems to be gaining ground that it is only by registration with this kind of title that there can be any hope of the "Torrens System" being generally adopted there, as the expense necessarily attendant upon the minute inquiry requisite for a certificate with an absolute title will, it is thought, there deter the great majority of persons who have no intention of selling or subdividing their properties, from bringing them under the Act. In this country, in addition to these necessary costs (which are, however, here only a fraction of the English charges), the Assurance fee has to be paid, and it is worthy of consideration whether it would not be advisable, in view of these facts, to relieve merely possessory titles from contribution to the Assurance Fund upon their first registration. This class of titles might be required to contribute on the property being transmitted. The advocates of this proposal urge that after property has been on the register for, say ten years, purchasers will in most cases

be willing to accept the title with little, if any, enquiry, and that they will certainly do so after the former title has been examined, though such examination has been on a previous purchase by another party, if the examination has been made by a solicitor of standing. The great advantage which would accrue from a step of this kind, if it induced a large number to register their properties under the Act, is that it would prevent titles becoming more complicated, while persons desirous of subdividing their lands into lots for sale to a large number of purchasers, would continue to apply for registration with absolute titles. It might be deemed proper to declare that after a certain period, registration with a possessory title should become absolute unless an adverse claim is lodged.

One heavy expense is the publication of notice of the application. I have striven to make this as light as possible by combining several notices together, and by only requiring two insertions in a newspaper, or newspapers, in addition to the notice in the *Ontario Gazette*, but notwithstanding this, I hear a good deal of complaint on this head. The new rules dispense with the advertisement in a larger number of cases than the former rules, and I purpose, where the property is of small value, say under $1,000, to dispense with publication other than in the *Gazette*, unless the circumstances are of a special nature, and seem to require publication of a more general character.

In view of the extension of the Act to the outlying districts of the Province, I prepared for the local masters of these districts a full explanatory memorandum respecting the office work, with a view of having that practice adopted of which my experience approved. For the purpose of aiding local masters in the performance of their duties, and facilitating the work of the profession and others doing business in the Land Titles Offices, I had prepared and published a pamphlet edition of "The Land Titles Act" as appearing in the Revised Statutes, with a full index and foot notes, containing cross references to the sections, rules and forms, which, I trust, will be of considerable assistance, and do somewhat to popularize the Act by enabling those wishing it, to become more easily familiar with its provisions.

The following table shows the business of this office since the Act came into force :—

Year.	Applications filed during year.	Applications granted during year.	Value of lands when brought under Act.	Transfers registered.	Charges registered.	Other instruments.	Total number of instruments registered.	Fees received during the year.
			$					$
1885 (1st July to 31st Dec).	46	6	60,250 00	None.	2	1	3	113 50
1886	42	44	983,189 00	231	233	181	645	2,547 24
1887	51	49	1,105,929 00	476	390	330	1196	4,307 51
	139	99	2,149,368 00	707	625	512	1844	

Since 1st January last, additional lands, valued at $130,700, have been brought under the Act, making a total of $2,280,068. The amount at the credit of the Assurance Fund is $5,779.93. The total number of instruments registered up to the present time is 2,075.

Annexed hereto is a table shewing the fees and disbursements in this office on each application granted, and the value of each parcel.

I have the honour to be, Sir,
Your obedient servant,

J. G. SCOTT,
Master of Titles.

TABLE, shewing value of each parcel of land in applications in Office of Land Titles at Toronto, where Certificate granted and the costs in the Office, including disbursements by Master.

[NOTE.—The Master's disbursements consist of fees paid to Registrar on examining title at Registry Office, Valuator's charges where valuation made and Registrar's fee for registering final certificate.]

No. of Application.	APPLICANT.	Value.	Costs.
		$ c.	$ c.
3	W. Leak	14,000 00	26 70
4	A. M. Turriff	1,650 00	12 05
5	R. Beales	1,000 00	12 80
6	T. W. Banton	600 00	12 80
7	R. Beatty	4,000 00	13 65
8	M. I. Gray	25,000 00	30 70
9	J. P. Clark	18,000 00	25 80
10	E. & F. Stanley	600 00	17 65
13	G. Barton	22,000 00	32 10
15	"	6,000 00	27 90
16	"	9,000 00	25 40
19	O. Mowat	11,000 00	15 90
20	G. Barton	2,100 00	14 60
21	"	1,500 00	18 90
22	J. C. Mussen	3,725 00	29 80
23	"	33,500 00	22 40
24	"	3,500 00	12 40
25	"	16,500 00	24 40
27	"	32,450 00	27 10
29	"	63,000 00	22 00
30	T. W. Wilson	12,400 00	14 70
31	J. Leighton	5,000 00	16 40
32	S. W. Black	11,000 00	29 80
35	J. Watson	12,000 00	21 80
38	Smith & Simpson	8,500 00	26 40
40	F. W. Jarvis	11,500 00	30 40
42	"	100,000 00	35 80
43	J. L. Thompson	12,500 00	30 80
44	D. Coulson	16,500 00	33 00
45	S. H. Janes	141,000 00	27 70
46	T. G. Green	1,500 00	10 85
48	V. Sankey	5,000 00	42 60
49	Imperial Bank	25,000 00	25 90
51	C. Radmore	600 00	14 40
52	W. S. Thompson	5,600 00	16 25
53	W. A. Douglas	2,100 00	19 40
54	J. Watson	32,000 00	31 60
58	Roaf & Taylor	34,225 00	27 45
59	R. Carswell	5,000 00	33 90
60	L. L Palmer	14,000 00	31 05
61	W. H. Pike	35,000 00	27 40
62	A. Morris	38,870 00	30 95
64	A. E. Patton	10,000 00	29 30
66	Ontario Lead Co.	20,500 00	49 55
67	Armstrong & Cook	20,400 00	23 75
68	J. H. Macdonald	5,829 00	40 20
69	W. Elliott	8,240 00	39 35
71	S. H. Janes	193,000 00	48 95
72	Morton *et al*	14,500 00	21 75
73	W. J. Baines *et al*	5,750 00	23 70
75	F. H. Woods	2,700 00	17 40
78	J. Kerr *et al*	5,340 00	24 70
79	W. M. Morse	12,200 00	28 30
80	G. Boyd	10,400 00	22 95
81	A. Livingston *et al*	11,500 00	19 35
82	E. Blong	33,000 00	29 30
84	A. M. Rice *et al*	25,000 00	27 65

Value of each parcel of land in applications in Office of Land Titles—*Continued.*

No. of Application.	Applicant.	Value.	Costs.
		$ c.	$ c.
85	A. Buchanan	1,700 00	31 70
86	J. Langstaff	17,830 00	24 00
87	E. H. Heward *et al*	9,500 00	18 75
88	Hon. W. McMaster	125,000 00	45 55
89	J. A. Huntley *et al*	4,000 00	24 10
90	G. Boyd	40,000 00	27 50
91	J. Russell	21,000 00	30 50
92	S. H. Janes	127,000 00	33 60
93	J. Regan	600 00	15 85
94	C. J. Smith	6,675 00	27 60
95	Toronto Land & Investment Co	65,000 00	21 20
96	J. L. Thompson	3,850 00	7 40
97	J. E. Doust	1,500 00	7 40
98	J. P. Murray	3,900 00	7 40
99	J. A. Murray	4,000 00	7 40
100	J. A. Macdonald	6,000 00	21 65
101	E. A. Wintercorbyn	10,000 00	31 75
102	G. W. Badgerow	14,000 00	15 95
103	J. Wallace	2,000 00	26 95
104	C. H. Greene	16,000 00	67 45
105	J. Mowat	44,700 00	26 80
106	A. Wheeler	16,300 00	41 40
108	S. H. Janes	66,000 00	20 90
109	"	10,150 00	15 50
110	H. Godson	7,500 00	26 65
111	E. Gledhill	5,000 00	30 00
112	J. Hunter	1,590 00	15 80
113	Toronto Land & Investment Co	19,837 00	20 00
114	" " "	32,595 00	28 60
115	J. L. Thompson	12,800 00	22 90
116	C. R. Rundle *et al*	11,262 00	22 10
117	S. H. Janes	11,000 00	29 40
118	G. P. Dickson	3,500 00	16 10
119	"	400 00	19 20
120	J. Dickson	29,250 00	24 00
121	"	10,000 00	24 00
122	"	7,500 00	27 20
123	E. R. Clarkson *et al*	38,000 00	32 50
124	T. M. Thomson	25,000 00	22 40
125	Land Security Co	81,500 00	32 30
128	F. Armstrong	12,000 00	35 45
130	T. J. Lackie	11,000 00	45 00
131	R. Clarke	5,000 00	38 15
138	J. L. Thompson	16,000 00	15 95

(No. 60).

Report of the Electoral, District, Township and Horticultural Societies of Ontario, organized under the Agricultural and Arts Act. (*Not printed.*)

RETURN

To a Resolution of the Legislative Assembly, passed on the 21st March, 1884, That in the opinion of the House it would be in the public interest that a Return be laid before the House, within ten days after its meeting, shewing the indebtedness of any Municipality to the Government, whenever the same may be in arrears for over one year, either on account of principal or interest.

By Command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, March 5th, 1888.

A RETURN shewing the indebtedness of Municipalities to the Government, on the 1st January, 1888, in accordance with a Resolution of the House passed March 21st, 1884.

—	Amounts due Drainage Assessment Fund.	—	Payments	Interest.	Total.
		$ c.	$ c.	$ c.	$ c.
Township of Russell.....	14 payments of $965.05	.....	13,510 70	6,147 05	19,657 75
" Sombra.....	3 " $3,230 = $9,690				
	Less on acct..... 3,138	.....	6,552 00	458 64	7,010 64
" Moore.....	6 payments of $152	912 00			
	7 " $97.22	680 54	1,592 54	261 60	1,854 14
					28,522 53

—	Drainage Debentures.	—	Debenture.	Interest.	Total.
		$ c.	$ c.	$ c.	$ c.
Township of Eastnor.....	1 Debenture, due June 30th, 1886..	.....	275 00	28 88	303 88

TREASURY DEPARTMENT, ONTARIO,
TORONTO, March 5th, 1888.

W. R. HARRIS,
Assistant Treasurer.

(No. 62).

Return shewing the sum at which the contract for constructing drainage works in the Township of Raleigh was let to John Elliott; the sum paid to the said contractor; the sums, if any, paid to each of the sub-contractors, with their names and date of payment; also, the name of the engineer or other person employed by the Ontario Government on whose recommendation or report such payments have been made, together with copies of such recommendation or report, if any. Also, a Return of all correspondence and communications, if any, between any member or officer of the Government, and any one on behalf of the said sub-contractors since the first day of January, 1879. (*Not printed.*)

(No. 63).

Return shewing the name of the several applicants for grants from the Crown, of the water lots in front of lots 5, 6, 7 and 8, in the first concession of the Township of Bertie, fronting on Niagara River. The names of all the parties to whom patents therefor issued, the dates of such patents and the consideration paid in each case. (*Not printed.*)

(No. 64).

Return shewing the amounts received by County or City Treasurers throughout the Province, on account of fines imposed for violations of the Scott Act. (*Not printed.*)

RETURN

To an Order of the Legislative Assembly, made on the 9th day of February, 1888, for a Return shewing the amounts paid up to this date for land expropriated for Niagara Falls Park purposes, to whom paid, and dates of payments. Also, a detailed statement of all moneys expended by the Government (other than for the purchase of land) through the Park Commissioners or otherwise, during the year 1887, and for what services and to whom paid. Also, all moneys received by the Commissioners on account of the sale of buildings, or on any other account during the year 1887. Also, shewing names of all parties appointed to any office in connection with the Park up to this date; and also, shewing the nature of their employment, their salaries, and the dates of their appointment.

By Command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, March 13th 1888.

(*Mr. Harcourt.*)

QUEEN VICTORIA NIAGARA FALLS PARK.

STATEMENT shewing amounts paid for lands expropriated for Park purposes, to whom paid, and dates of payment.

Date.	To Whom Paid.	DECEMBER 31st, 1887. Award.	Amount paid with interest to date of payment.	Costs paid.	Total Am't paid.
1887.		$ c.	$ c.	$ c.	$ c.
Mar. 6....	Saul and Ellen Davis		On account. 30,000 00	751 00	
July 21....	do do		25,000 00		
Aug. 10....	do do	175,000 00	10,000 00		
Dec. 7....	do do		27,588 39	.....	93,339 39
May 4...	Estate James Buchanan.....	1,550 00	1,606 21	79 94	1,686 15
" 4....	R. S. Buchanan.	6,600 00	6,839 33	30 00	6,869 33
" 7....	Wm. Oliver Buchanan.....	21,767 00	21,899 37	682 38	22,581 75
" 5....	Patrick S. Clarke	2,500 00	2,515 20	25 00	2,540 20
" 7....	Mrs. Elizabeth Gladstone.....	8,250 00	8,300 17	109 30	8,409 53
" 7....	John T. Bush (in Chancery).....	34,000 00	35,238 72	1,199 88	36,438 60
" 7....	C. Vanderbilt and N. Kingsmill.....	850 00	855 30	250 79	1,106 09
" 7....	Canada Southern Railway.	150 00	150 91	250 79	401 70
" 9,12....	Lyman Moore and T. C. Livingston..	2,900 00	2,917 63	204 00	3,121 63
" 10....	W. E. Tench, Jr.....	1,500 00	1,509 12	25 00	1,534 12
" 10....	Peter Wood and F. T. Walton.....	14,000 00	14,087 44	120 00	14,207 44
" 11....	Sutherland Macklem.....	100,000 00	100,608 20	1,051 38	101,659 58
" 12....	Walter Brett.....	250 00	251 52	25 00	276 52
" 21....	James T. Brundage.....	15,050 00	15,144 00	149 50	15,293 50
June 4....	Edmund W. Tench.....	8,000 00	8,043 39	61 50	8,104 89
July 21....	Wm. and Elizabeth J. Robinson.....	7,200 00	7,237 44	119 50	7,356 94
Sept. 1 ..	St. Catharines, Thorold & Niagara Falls Road (part of).....	4,000 00	4,000 00	2,049 46	6,049 46
" 17....	Heirs (Newton).....	400 00	410 00	less 85 10	324 90
		403,967 00	324,202 34	7,099 38	331,301 72

QUEEN VICTORIA NIAGARA FALLS PARK.—*Continued.*

STATEMENT shewing moneys expended (other than for the purchase of land) during the year 1887.

NAME.	SERVICE.	$ c.
J. E. Anger	Advertising and hand bills	7 57
Wm. Spence	Cotton, etc., for small survey flags	2 50
News Publishing Company	Advertising	19 50
E. H. Rogers	Bridge timber	97 45
Wm. Adamson	Refund	5 00
C. C. Misener	Repairing mower	2 50
Jas. Buckley & Co	Office requisites	3 50
Cole & McMurray	Tile pipes, cement, tools, etc	468 68
Mrs. L. Kister	Nails and spikes	67 37
Waugh & Lovell	Oak plank	62 59
Dudley & Burns	Stationery	27 50
Wm Glassbrook	Trench for supply to elevator, blasting, etc	671 24
F. E. Dalton	Machine oil	20
Isaac Brecken	Lumber for sign board	50
J. Henry Pierce	Iron railings, safe, tinning and plumbing	235 38
George Clark	constructing retaining wall, etc	387 65
D. Stewart	Taking out stone, clay, etc	27 00
Andrew Carnochan	Timber and lumber	572 62
Fred. Aldons	Repairs to dwelling	363 70
Arthur Dratt	Removing and piling stone	137 25
David Herbold	White lead	5 20
J. C. Woodruff	Tools	33 25
J. Hexiximer	Use of tools	9 50
Tench & Son	Bridge timber, contract for fence, etc	1,675 01
John Smith	Removing injured workman	3 00
John Mills	Duty on bridge timber	19 40
J. S. Hanes	Tools	1 20
Hart & Co	Office supplies	16 58
Arch. Moore	Cartage of material	13 98
W. W. Woodruff	Stamps	10 00
John Carter	Bolts and drift bolts	195 34
C. Schacht	Painting bridges, etc	266 27
Joshua Johnson	Seasoned oak for bridges	9 36
Pat. McCall	Building roads, paths, etc	5,101 80
J. Wilson, Superintendent	Personal expenses and incidentals	106 81
J. Quillinan Accountant	Office sundries	19 28
R. Coulson	Lime, etc	10 35
Alex. Cable	Cheque book	10 00
Sam. Morse	Sand	23 00
J. R. Lundy	Oak plank	60 00
C. F. Kanmeyer	Pine	12 00
Town of Niagara Falls	Water rate	3 00
George McKenzie	Sharpening tools	1 05
Chippawa Tannery	Use of tools	7 00
James McKenzie	Second hand timber	20 08
George Brundage	Sharpening tools, etc	6 02
Mrs. L. Quillinan	Lamp	3 15
Coulson & Robinson	Coals	3 25
Geo. P. Keller	Loan of jack screws	16 50
Jos. Cadham	Office furniture	24 30
J. H. Garner & Co	Screws	3 20
H. S. Ware	Tools	2 25
Robt. Henderson	Gratuity on account injury	40 82
Ant. Casey	" " "	32 50
Williamson & Co	Tracing cloth and paper	5 00
James Foster	Drawing implements	3 40
Welland *Telegraph*	Advertising	2 00
Welland *Tribune*	"	3 12
David Lanzan	Contract for filling cellars, etc	508 20
	Carried forward	

QUEEN VICTORIA NIAGARA FALLS PARK.—*Continued.*

STATEMENT shewing moneys expended during the year 1887.—*Continue*

NAME.	SERVICE.	$ c.
	Brought forward	
Andrew Hawkins	Cutting grass	25 00
W. H. Marcon	Seeds	6 50
Clark & Henderson	Wheelbarrows	4 80
J. Notman	Pencils	0 50
Alex. Grant		12 00
Warwick & Son		15 92
Captain Grant	Salary as Secretary to Commissioners	900 00
A. J. Henderson	Reporting and copying in *re* arbitrations	923 01
Monotype Printing Co	Copying	10 00
Warden of Welland	Expenses	10 00
D. Burns	Coals	16 85
Æmilius Irving, Q.C.	Fees and disbursements	3,093 37
Tom McGuane	Witnesses in arbitrations	18 00
Mrs. Legg	Caretaker—office	18 60
Forsyth Johnson	Plans, etc	250 50
Thomas Lalor	Repairs to locks	1 80
Express Co	Map and charges	5 00
John McAree	Surveys	47 10
Montreal *Herald*	Advertising bonds	17 05
Montreal *Gazette*	" "	20 15
John Paton, N.Y.	" "	189 65
John Hayne	Clerk and chairman of commissioners	150 00
Wm. Wainwright	Statistics of travel	100 00
The Commissioners	Personal expenses	278 07
George Pears	Office rent (two years)	174 00
Brown Bros.	Journal and ledger	13 50
Globe Printing Company	Advertising bonds	27 00
Mail " "	" "	28 80
J. Quillinan, Accountant	Personal expenses	33 55
D. D. Everards	Registration of titles	69 58
London and Canada Loan and Ag'cy Co.	Interest on loan, etc	3,577 09
Toronto Lead Company	Paints	97 16
W. M. German	Preparing deeds	62 32
F. L. Olmstead	Landscape artist, expenses	30 00
E. Chanteloup	Turnstiles	585 00
J. S. Williams	Printing tickets	12 00
John Fensom	Account, building elevator	4,520 00
H. R. Ives & Co	Iron gates	150 25
Ontario Lead and Barb Wire Co.	Barbed wire fencing	502 60
Alex. Cable	Engraving bonds	450 00
Judge Senkler	Arbitrator, fees	204 00
Col. H. Taylor	" "	121 60
Imperial Bank	Interest on bonds, half year	10,500 00
Miah Bowen	Part taxes on property acquired	270 00
J. C. Auger	Advertising *re* lands	12 00
J. W. Duncan	Sheriff's fees	8 83
Salaries of staff.	At Niagara Falls	2,126 56
Workmens wages		6,092 05
	Total	$47,227 63

QUEEN VICTORIA NIAGARA FALLS PARK.

STATEMENT shewing the amounts received in 1887 from the sale of Park buildings, fencing *re* and from visitors under the "sheet of water."

1887.	Buildings Sold.	To Whom Sold.	$ c.	$ c.
May 17....	Brundage barn	R. C. Eldrige	50 00	
" 17....	Shed, rear of barn	G. W. Clarke	35 00	
" 17....	Dwelling, rear of barn	J. Cloney	40 00	
" 17....	Dwelling, south of barn	"	25 00	
" 17....	Brunswick house	John Ellis	150 00	
" 17....	Brunswick barn	Robert Misener	40 00	
" 17....	Goodfellow dwelling	Saul Davis	95 00	
" 17....	Metzar dwelling	G. W. Clark	35 00	
" 17....	Maple Leaf dwelling	H. Skinner	10 00	
" 17....	Tupper house	C. Kister	50 00	
" 17....	Old museum	R. Anderson	20 00	
" 17....	Shed, rear of old museum	W. Gunning	30 00	
" 17....	Davis shed	W. Kerr	35 00	
" 17....	Frame shed, range 9	Geo. Clarke	60 00	
" 17....	Barn, rear of range 9	Henry Brown	15 00	
" 17....	Crotty dwelling	R. Anderson	25 00	
" 17....	Barn, rear of	A. Hawkins	45 00	
" 17....	Street's office	L. D. Groom	35 00	
" 17....	Barn adjoining	G. Glasgow	35 00	
" 17....	Robinson picket fence	Geo. Ellis	30 00	
" 17....	Robinson board fence	A. Moore	5 00	
" 17....	Barn, rear of Goodfellow's	J. Cloney	20 00	
" 17....	Fence, "	W. Glassbrook	6 00	
" 17....	Shed, rear of Tupper lot	F. W. Ellis	10 00	
" 19....	Barn, rear of Crotty's	M. McMahon	6 00	
" 19....	Outbuildings	Geo. Glasgow	3 00	
			$910 00	
	Less expenses advertising and commission		66 90	
		Net proceeds	$843 10	
Aug. 20....	Pett House	D. Herboldt	20 00	
Sept.	Toll house No. 5	H. Wilsen	30 50	
Oct.	Bush Summer cottage	W. Bell	10 50	904 10
	Old wooden fencing sold in small quantities		$119 35	
	Timber of dead trees		42 50	
	Old iron fencing		76 10	237 95
				$1,142 05
	RECEIPTS FROM SHEET OF WATER FROM MAY 10TH TO DECEMBER 31ST, 1887.			
	During the month of May		119 75	
	" " June		272 25	
	" " July		381 00	
	" " August		448 75	
	" " September		273 00	
	" " October		133 75	
	" " November		57 75	
	" " December		30 00	1,716 25
		Aggregate receipts		$2,858 30

QUEEN VICTORIA NIAGARA FALLS PARK.

STATEMENT SHEWING MONEYS RECEIVED BY THE COMMISSIONERS DURING 1887.

Amount realized from sale of Queen Victoria Niagara Falls Park Bonds	$534,667 14
" received from sale of sundry properties (see Schedule)	1,142 05
" " " visitors under the "Sheet of Water," (see Schedule)	1,716 25
" " for interest on deposit *re* John T. Bush property	662 33
" advanced by Government in 1887, with unexpended balance from 1886 in the hands of the Commissioners	2,075 50
" received as interest on deposit in Imperial Bank to December 31, 1887	3,375 73
Aggregate receipts for 1887	$543,639 00

QUEEN VICTORIA NIAGARA FALLS PARK.

APPOINTMENTS IN 1887.

Appointment to the Board of Commissioners under an Order in Council bearing date the Seventh day of May, A. D. 1887 :

JOHN A. ORCHARD was appointed a Member of the Board of Commissioners for the Management of the Queen Victoria Niagara Falls Park, under the provisions of 50 Victoria, Chapter 13.

There is no salary attached to the office.

QUEEN VICTORIA NIAGARA FALLS PARK.

LIST of appointments made by the Commissioners.

Names.	Nature of appointment.	Date.	Rate of Salary.
1. James Wilson	Superintendent	May 1st, 1887	$2,000 per year and free house.
2. James Quillinan	Accountant	June 1st, 1887	$800 per year and free house.
3. Roderick Cameron	Gardener	June 14th, 1887	$600 per year and free house.
4. William Bowman	Policeman	Oct. 3rd, 1887	$2.00 per day and official clothing.
5. Walter Waite	Gate Keeper	July 22nd, 1887	Each Gate Keeper is allowed $1.50 per day, official clothing and $5.00 per month in lieu of free house.
6. James Willox	do	" 22nd, 1887	
7. Willas W. Whistler	do	" 22nd, 1887	
8. Joseph Wynn	do	" 22nd, 1887	

NOTE.—None of the Gate Keepers have been called upon for duty up to the present, nor have they received any pay.

STATEMENT

Of moneys received and expended on account of the Mercer Estate during the year 1887.

Presented to the Legislative Assembly,

By command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, 15th March, 1888.

THE MERCER ESTATE.

Accounts in detail of all moneys received and expended on account of the Mercer Estate from 1st January, 1887, to 31st December, 1887.

Receipts.

Amount from 29th July, 1886, being interest on J. H. Taylor's mortgage (Etobicoke lot) for half year ending 23rd July, 1886	$105 00
January 25—Interest on John Brown's mortgage, (Gwillimbury lot)	24 00
" 25—Jno. Brown, balance of purchase money on Lot 1, 8th Concession, N. Gwillimbury	200 00
February 18—Interest on Taylor's mortgage (Etobicoke lot)	90 00
March 2—J. H. Taylor, on account of purchase money on Lot 27, 3rd Concession, Etobicoke	1,000 00
April 6—In full of R. L. Denison's mortgage	1,200 00
May 26—M. R. Chapman, on account of purchase money on Lot 4, 8th Concession N. Gwillimbury	50 00
August 26—Interest on Taylor's mortgage (Etobicoke lot) for half year ending 23rd July, 1887	60 00
December 9—Interest on Allen mortgage, Lot 6, Bay Street, Toronto	689 32
December 9—A. A. Allen, balance of purchase money on Lot 6, Bay Street, Toronto	5,130 00
	$8,548 32

Disbursements.

April 23—David Graham, commission on sale of Lots 2 and 4, 8th Concession N. Gwillimbury	$16 25

RETURN

To an Address of the Legislative Assembly to His Honor the Lieutenant Governor passed on the 12th day of March, 1888, praying that he will cause to be laid before this House: Copies of all correspondence between the Governments of Ontario and the Dominion in reference to an alleged claim of the Six Nation Indians to compensation for lands drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company in or about the year 1833.

By command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, March 15th, 1888.

(*Mr. Awrey.*)

RETURN

TO AN ADDRESS OF THE LEGISLATIVE ASSEMBLY PASSED ON THE 7TH FEBRUARY, 1888, FOR CORRESPONDENCE BETWEEN THE GOVERNMENTS OF ONTARIO AND THE DOMINION FOR AN ALLEGED CLAIM ON ACCOUNT OF LANDS SUBMERGED BY A DAM IN OR ABOUT THE YEAR 1833.

[THE SECRETARY OF STATE TO THE LIEUTENANT GOVERNOR.]

DEPARTMENT TO THE SECRETARY OF STATE,
OTTAWA, 4th November, 1887.

SIR,—I have the honour to transmit to you herewith, for the information of your Government, copy of an approved Minute of Council having reference to a claim of the Six Nation Indians to compensation for lands drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company in or about the year 1833, together with copy of the statement therein referred to. I have at the same time to invite your attention to the third paragraph of the Minute of Council wherein it is provided that it be pointed out to you that the claims referred to are of very long standing, and that you should be urged to take such necessary measures as will procure a reply from your Government at the earliest possible date.

I have, etc.,

(Signed) G. POWELL,
Under Secretary of State.

His Honour
THE LIEUTENANT GOVERNOR OF ONTARIO,
Toronto, Ont.

CERTIFIED COPY of a Report of a Committee of the Honourable the Privy Council approved by His Excellency the Governor-General-in-Council on the 15th October, 1887.

On a memorandum dated 4th October, 1887, from the Superintendent-General of Indian affairs, submitting a statement of the facts in connection with the claim of the Six Nation Indians to compensation for lands drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company in or about the year 1833.

The Minister represents that this matter was referred to the Minister of Justice for an opinion as to the best plan to be adopted with a view to a settlement of the claim with as little further delay as possible, and he recommends that an endeavor be made in the usual manner to obtain the consent of the Government of Ontario and Quebec respectively to the payment of the claim, and that, with this object in view, a full statement of the facts of the case should be presented.

The Minister of Justice further recommends that the statement be communicated to the Lieutenant Governors of those Provinces for submission to their respective Govern-

ments, that it be pointed out to the Lieutenant Governors that the claims are of very long standing and that they should be urged to take such necessary measures as will procure replies at the earliest possible date; and should the Provincial Governments refuse their consent to the amount in question being liquidated as a charge against the old Province of Canada, the Minister of Justice is of opinion that the matter should be brought before the Exchequer Court and a judgment obtained from that tribunal which will be binding on all parties.

The Committee concurring in the foregoing advise that the Secretary of State be authorized to transmit a copy of this minute, if approved, to the Lieutenant Governors of the Provinces of Ontario and Quebec for the information of their respective Governments.

All which is respectfully submitted, .

(Signed) JOHN J. McGEE,
Clerk, Privy Council.

The Honourable
THE SECRETARY OF STATE.

STATEMENT OF FACTS in connection with the claim of the Six Nation Indians the compensation for lands drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company.

It appears from the correspondence on file in the Department of Indian Affairs that, owing to the construction of a dam across the Grand River at Dunnville a number of years ago by the Welland Canal Company, a large quantity of land belonging to the Six Nation Indians was submerged and thereby rendered utterly useless and of no value, said lands being situated in the Townships of Dunn and Cayuga, in the County of Haldimand.

In the year 1833 the then Government of Upper Canada caused a survey to be made by the late Lewis Burwell, Esq., P. L. S., of the said lands, and he reported that the quantity of land flooded was 1,993.65 acres.

In 1835 an Act was passed by the Legislature of the Province of Upper Canada appointing commissioners or arbitrators to value the damage done to improvements of individual Indians on the lands submerged, and an award was made, which award, it appears, cannot now be found. From the appendixes to the Journals of the Assembly of Upper Canada for 1836, 1836-7 and 1837-8 there would seem to have been paid the claimants the sum of £865 19s. 2d. under the award referred to. It has been alleged, however, by the Indians that these payments were to be made under the award at three distinct periods, but that only one of such payments was really made, and upon the union of Upper and Lower Canada the Welland Canal became the property of the united Provinces subject to the payment of liabilities.

In compliance with a request contained in a petition addressed to the Superintendent-General of Indian Affairs from the Delaware or Muncey * Band of Indians, dated the 10th March, 1876, the Department of Public Works was requested to direct enquiry to be made into their claims to compensation for improvements on the lands submerged in order that payment might be made to the Indians for the loss sustained on account of said improvements The Department of Public Works accordingly appointed Messrs. A. Livingstone and W. G. McGeorge as valuators. These gentlemen reported on the 19th of June, 1877, that they made diligent search wherever they thought any record could be found of any award made in favour of the Indians for their improvements, but that they were unable to find anything that would shew that an award had been made, excepting

* The Delawares who migrated to the Muncey Reserve in the Township of Caradoc, County of Middlesex, were part of the Six Nations, and resided on the flat or low lands of the Grand River. They accepted the invitation of their brethren at Muncey and left the Grand River. Some of them also settled with their brethren on the Moravian Reserve in the Township of Orford in the County of Kent.

in the case of one George Monture who had been paid the sum of £12 18s. 7d. for his improvements. They state, however, that there appeared to be no doubt that the Indians were driven from their lands, but that it was quite impossible to tell the amount awarded, or who were settled with and who were not, excepting in the case referred to of George Monture.

Messrs. Livingstone and McGeorge were of opinion that the sum of $1,000 should be paid to the Indians through their Agent under legal instructions as to the proper heirs.

The fact that an award of $1,000 had been made by the above gentlemen was communicated to Mr. Agent Gordon, of Strathroy, as representing the Muncey and Moravian, and to Mr. Superintendent Gilkinson, of Brantford, as representing the Six Nation claimants, but they disagreed as to the Indians entitled to share in the award. Chief Michael Anthony also, on behalf of the Delawares residing on the Six Nation Reserve, informed the Department that the Delawares felt that if they were entitled to anything it must be to a much larger amount than that awarded by Messrs. Livingstone and McGeorge.

In January, 1878, the Department of Public Works was informed by this Department that as the award said to have been made by the Government valuators about the year 1836 could not be found, and as the amount of compensation recommended by Messrs. Livingstone and McGeorge was only intended to meet the claims of individual Indians for improvements owned by them on the lands submerged, and did not apply to the value of the land, it was submitted that a fair way to arrive at a conclusion as to the actual value of the land submerged would be to take the average value of the land sold about the year 1833 in the vicinity of the drowned lands and add interest thereto at the rate of six per cent. from the date of Mr. Burwell's survey, which was in the same year, namely :

Average paid per acre in 1833	$ 4 03
Add 6 per cent. per annum from 1833 to 1878	10 88
	$14 91
1,993 65-100 acres at $14.91 per acre	$29,715 63

In 1882 the Department of Railways and Canals* referred the question to the Dominion Board of Arbitrators, of whom Mr. James Cowan, of Galt, was one. Both Mr. Agent Gordon, of Strathroy, and Mr. Superintendent Gilkinson, of Brantford, were advised of this and informed that they should be prepared to present the claim of the Nations before the Board when called upon to do so.

On the 25th of July, 1882, Mr. Superintendent Gilkinson reported that on the 14th of that month Mr. Cowan, of the Dominion Board of Arbitrators, called upon him and examined the records of his office ; that Mr. Cowan's instructions limited him to the value of the lands only and had no reference to the question of improvements of individual Indians, that in perusing the documents in his office they discovered that the claims of certain Delaware Indians of the Six Nations (some of whom removed to Moravianton as before stated) for improvements were all paid ; that it so appeared in a report of Mr. H. A. Fissault, of the Board of Works, dated the 11th of March, 1879, and that Mr. Fissault's letter which accompanied his statement with names, payments, etc., states that "all the damages awarded to Indians for loss of land improvements had been paid."

On the 2nd November, 1883, the acting Minister of Railways and Canals, in a memorandum, admitted the liability of the Government to the Indians for the amount of $28,672.67 awarded by the Dominion Board of Arbitrators.

Subsequently, however, this Department was informed by the Department of Railways and Canals that, while regretting the position of the Indians concerned in the matter,

* In 1879 the Department of Public Works was divided into two by the creation of the Department of Railways and Canals.

the Minister of that Department was powerless to compensate them without the consent of the Provincial Government, the damages in question having occurred prior to Confederation.

(Signed) L. VANKOUGHNET,
D. M.

Department of Indian Affairs,
Ottawa, September 24th, 1887.

[The Secretary of State to the Lieutenant Governor.]

Department of the Secretary of State,
Ottawa, 29th November, 1887.

Sir,—I have the honour to request that the attention of your Government may be invited to Mr. Under Secretary Powell's letter, of the 4th instant and its enclosures, relative to the claim of the Six Nation Indians to compensation for lands drowned by the construction of a dam at Dunnville by the Welland Canal Company in or about the year 1833. I have at the same time to acquaint you, for the information of your Government, that I have received a communication from His Honour the Lieutenant Governor of Quebec, in which he expresses the full concurrence of his Government in the report of your Prime Minister on the above subject.

I have, etc.,

(Signed) J. A. CHAPLEAU,
Secretary of State.

His Honour
The Lieutenant Governor of Ontario,
Toronto, Ont.

[The Lieutenant Governor to the Secretary of State.]

Government House,
Toronto, 2nd December, 1887.

Sir,—Adverting to your despatch of the 4th ultimo (No. 6,283 on 12,975) having reference to a claim of the Six Nation Indians to compensation for lands said to have been drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company in or about 1833, I have now the honour to enclose herewith, for the information of the Dominion Government, copy of an Order of the Honourable the Executive Council of this Province, approved on the 30th ultimo, together with copy of the report of the Honourable the Attorney-General therein referred to, and to request you to furnish for the information of my Government* copies of all the correspondence and documents mentioned in the "Statement of Facts" transmitted by you in your said despatch of the 4th ultimo.

I have, etc.,

(Signed) A. CAMPBELL,
Lieutenant Governor of Ontario.

The Honourable
The Secretary of State,
Ottawa, Ont.

* [Note—The documents and correspondence asked for in the above despatch have not yet been received.]

Copy of an Order in Council approved by His Honour the Lieutenant-Governor, the 30th day of November, A.D. 1887.

The Committee of Council have had under consideration the annexed report of the Honourable the Attorney-General, with reference to a claim on behalf of the Six Nation Indians to compensation for lands said to have been drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company, and advise that the said report be acted upon.

Certified, J. LONSDALE CAPRÉOL,
Asst. Clerk Executive Council,
Ontario.

The Honourable
The Provincial Secretary.

The undersigned has had under consideration the despatch of the Under Secretary of State to Your Honour, dated 4th November, 1887, and the order and "Statement of Facts" referred to therein with respect to a claim on behalf of Six Nation Indians to compensation for lands said to have been drowned by the construction of a dam across the Grand River at Dunnville by the Welland Canal Company in or about the year 1833. The undersigned has no information whatever on the subject except what these documents set forth, and he therefore respectfully recommends that the Dominion Government be requested to furnish to this Government copies of all the correspondence and documents referred to in the "Statement of Facts." Meanwhile, in view of what appears from the documents received, the undersigned is of opinion that, so far as regards this Province, it is impossible to recognize the claim.

The Welland Canal passed to the Dominion of Canada under the B.N.A. Act, and if there was any outstanding liability of the Province arising out of the construction of the canal, such liability must be against the Dominion as a whole, and is not a liability with which the Provinces of Ontario and Quebec, as now representing the Province of Canada, are to be charged as for a debt of the Province of Canada.

This was evidently the view taken by the Dominion Government until the present year, as all their inquiries and their reference to arbitrators were made without notice to this Government, or, it is presumed, to the Government of Quebec.

With respect to the award, one observation suggested by reading these documents is that, while the building of the canal increased very much the value of the undrowned Indian land, this obvious and most material fact does not appear to have been taken into account in the new compensation to which the consent of the provinces is now asked.

If the Dominion Government thinks fit to allow the sum of $28,672 out of the Dominion Treasury as a matter of Dominion policy or of benevolence and not as a matter for which the Provinces of Ontario and Quebec are liable as Provinces, this Government may have nothing to say. But, looking at the matter as a claim of debt, it seems to the undersigned as in the highest degree objectionable that so stale a claim should be recognized, its alleged ground having arisen upwards of half a century ago, having been the subject of an investigation and an award immediately afterwards, and (so far as appears from the statement of facts) no further claim having been suggested for some forty years after the award, the suggestion then made having come from an officer of the Dominion Government fond of antiquarian research into matters the actors in which are dead and the facts of which have become obscure through lapse of time. Whatever was done by the Government of Upper Canada at the time appears to have been then, and for at least forty years afterwards, satisfactory to the Indians and to those who during this period were from time to time looking after their interests.

(Signed) O. MOWAT.

15th November, 1887.

STATEMENT

Of the Bursar of the University of Toronto, shewing Cash Transactions for year ending 30th June, 1887.

Presented to the Legislative Assembly.

By Command,

ARTHUR S. HARDY,
Secretary.

Provincial Secretary's Office,
Toronto, 19th March, 1888.

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT shewing the nature of Investments constituting the Permanent Fund and the Income derivable therefrom as at 30th June, 1887.

	Investments.	Income.
	$ c.	$ c.
Municipal debentures:		
$1,067 40 @ 7 per cent	874 71	
281,431 43 @ 6 "	16,885 88	
158,436 37 @ 5 "	7,921 81	
2,433 33 @ 4 "	97 33	
	443,368 53	24,979 73
First mortgages on real estate	572,715 23	35,310 67
Balances due on sales of land	25,114 18	1,506 85
Rents	.....	1,275 00
Rents, University Park	.....	8,804 00
Canadian Bank of Commerce, seven shares	350 00	24 50
	1,041,547 94	71,900 75

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Capital Account for year ending 30th June, 1887.

Receipts.		—	Disbursements.	—
		$ c.		$ c.
Purchase money—sales endownment		2,615 27	Balance 30th June, 1886	63,286 89
" " invested property		1,316 00	Invested in loans on first mortgage real estate	62,712 37
Loans repaid		38,616 06	Invested in debentures:	
Debentures redeemed:			Township of Mara..$1,000	
Township Luther	$213 80		" E. Luther. 555	
City of Toronto (P.P)	400 00			1,555 00
Township Sandwich	$354 00		Transferred to Blake scholarship account	1,250 00
" "	192 68			
" "	111 14			
" "	188 12			
" "	96 58			
" "	110 30			
	1,052 82			
Carried forward	1.666 62	42,547 33	*Carried forward*	128,804 26

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Capital Account.—*Con.*

RECEIPTS.		—	DISBURSEMENTS.	—
		$ c.		$ c.
Brought forward	1,666 62	42,547 33	*Brought forward*	128,804 26
Debentures redeemed.—*Continued*:				
Township West Tilbury	355 80			
" Rochester	102 46			
" Albion	2,000 00			
Building and Loan Association	15,000 00			
Town of Petrolia	1,100 00			
County Elgin	3,000 00			
Township Nottawasaga $194 00				
" " 188 00				
	382 00			
" Ellice	582 00			
Village of Drayton	436 28			
Township Rochester $139 10				
" " 139 43				
	278 53			
County of Haldimand	2,000 00			
Township Mara	100 00			
" Sandwich	354 00			
Village of Port Elgin	170 00			
	27,527 69			
Less credit University in error by bank:				
Drayton debentures $264 53				
Nottawasaga debentures 370 00				
	634 53			
		26,893 16		
Amount received for license to front on Yonge Street Avenue		850 00		
Balance 30th June, 1887		58,513 77		
Total		128,804 26	Total	128,804 26

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Income Account for year ending 30th June, 1887.

RECEIPTS.	—	DISBURSEMENTS.	—
	$ c.		$ c.
Interest on purchase money, invested property sales	79 00	Balance 30th June, 1886	2,462 06
Interest on purchase money, endowment sales	1,566 70	Amount appropriated for expenditure for year ending 30th June, 1887, including retiring allowance to Dr. McCaul	58,300 00
" loans	32,027 26	Commission on loans	199 25
" debentures	26,146 75	Rent, President's house	800 00
Rents	1,511 67		61,761 31
Rents, University Park	6,982 00	Balance 30th June, 1887	6,310 87
Dividend bank stock (Commerce)	24 50		
	68,337 88		
Mulock scholarship: Amount re-transferred, scholarship having been awarded	150 00		
	68,487 88		
Less interest on Vice-Chancellor fund transferred $29 00			
Less interest on bank account overdrawn 386 70	415 70		
Total	68,072 18	Total	68,072 18

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Appropriation Account for year ending 30th June, 1887.

RECEIPTS.	—	DISBURSEMENTS.	—
	$ c.		$ c
Balance 30th June, 1886	8,290 67	Bursar's office	2,949 24
Amount transferred from income fund for expenditure for year ending 30th June, 1887, including retiring allowance to Dr. McCaul	58,300 00	Insurance (Moss Hall)	50 16
Fees, deeds, transfers, etc.	51 50	Insurance loans	192 03
" pasture	144 41	Law costs	88 75
" University Col. $6,778		General incidentals	48 50
" University 6,653		Salaries	43,807 68
	13,431 00	Scholarships	2,840 00
		Examiners	3,371 01
		Prizes and medals, University	68 45
		Prizes, University College	21 00
		Stationery and printing, University	2,007 17
		Stationery and printing, University College	286 17
		Advertising, University	102 70
		" University College	14 69
Carried forward	80,217 58	*Carried forward*	55,847 55

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT of Receipts and Disbursements on Appropriation Account.—*Con.*

RECEIPTS.	—	DISBURSEMENTS.	—
	$ c.		$ c.
Brought forward	80,217 58	*Brought forward*	55,847 55
		Museum, Natural History and Biological laboratory	1,248 98
		Geological museum	319 85
		Library	2,556 35
		Water and gas	493 91
		Building and grounds	3,508 39
		Incidentals, University and University College.	163 74
		Repairs, Moss Hall (special)	245 00
		Physical laboratory, maintenance	78 00
		Chemical lecturer, materials	199 33
		Telephones	115 00
		Pensions, servants	166 00
		" Dr. McCaul.	2,500 00
		Fuel	1,668 47
		Valuation fees	40 00
		Balance 30th June, 1887	11,067 01
Tota	80,217 58	Total	80,217 58

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT shewing Salaries paid for year ending 30th June, 1887.

NAME.	SERVICE.	—
		$ c.
Bursar's Office:		
J. E. Berkeley Smith	Bursar, 12 months	2,200 00
Geo. A. Stimson	Clerk	800 00
		3,000 00
University:		
W. Mulock, M.A.	Vice Chancellor, 12 months	400 00
D. B. Dick	Architect "	100 00
A. Baker, M.A.	Registrar "	750 00
W. H. Vander Smissen, M.A.	Librarian "	1,000 00
A. H. Gibbard	Assistant in library, allowance	120 00
J. W. Dales	" " "	100 00
J. H. McGeary	Registrar's assistant	50 00
J. E. Jones	" "	150 00
R. McKim	Beadle and messenger to Senate, 12 months	190 00
T. Eversfield	Engineer, 12 months	480 00
A. Pride	Sub-curator of museum, 12 months	524 00
		3,864 00

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT shewing Salaries paid for year ending 30th June, 1887.—*Con.*

NAME.	SERVICE.	—
		$ c.
University College:		
Dr. Daniel Wilson	President and Professor of History, 12 months	4,200 00
Dr. W. H. Pike	Professor of Chemistry "	3,100 00
E. J. Chapman, Ph.D	" Geology "	3,100 00
Maurice Hutton	" Classics "	3,100 00
Geo. P. Young, M.A	" Metaphysics and Ethics "	3,100 00
R. Ramsay Wright	" Natural History and Biology, 12 months	3,100 00
James Loudon, M.A	" " Philosophy, etc., 12 months	3,100 00
J. M. Hirschfelder	Lecturer in Oriental Literature "	1,500 00
Alfred Baker, M.A	Dean and Mathematical tutor "	1,746 68
W. J. Loudon, M.A	Demonstrator of Physics, 12 months	1,200 00
D. R. Keys	Lecturer on Italian "	1,300 00
W. H. Vander Smissen	" German "	1,000 00
W. Dale	Classical tutor, etc. "	1,500 00
Rev. J. F. McCurdy	Lecturer on Oriental Literature, 12 months	1,375 00
J. Squair	" French	1,000 00
W. P. Mustard	Fellow allowance	500 00
L. Bowerman	" "	500 00
J. H. Cameron	" "	500 00
F. T. Shutt	" "	500 00
A. B. McCallum	" "	500 00
H. R. Wood	" "	500 00
T. M. Logie	" "	500 00
J. H. McGeary	" "	500 00
F. W. Babington	Chemical lecturer, assistant	100 00
J. E. Martin	Fellow allowance	500 00
R. H. Bullen	Attendance	504 00
John Hare	"	464 00
R. McKim	Beadle	510 00
J. Durance	Attendant	444 00
		39,943 68
	Add University	3,864 00
	Total salaries, Fellowships, etc., as per statement	43,807 68

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

UNIVERSITY OF TORONTO.

THE BURSAR'S STATEMENT of Cash Balances, 30th June, 1887.

	Dr.	Cr.
	$ c.	$ c.
Cash	402 34	
Cash, Bank of Commerce	7,006 95	
Capital account	58,513 77	
Income account		6,310 87
Income appropriation		11,067 01
Starr bequest		1,359 98
Surplus income fund		23,247 53
Special account Vice-Chancellor		351 00
Gymnasium		126 53
Contingent fund		10,000 00
Moss scholarship		2,000 00
Coutts loan	412 51	
McCaul medal		15 00
Prince's prize		97 83
Physics, laboratory sale account		5 00
Mulock scholarship		2,000 00
D. Wilson scholarship		2,000 00
Geo. Brown "		1,054 82
Mary Mulock "		2,500 00
John Smith, loan		250 00
Blake scholarship		1,250 00
Deposits		2,700 00
Total	66,335 57	66,335 57

BURSAR'S OFFICE,
Toronto, 2nd July, 1887.

J. E. BERKELEY SMITH,
Bursar.

CORRESPONDENCE

RESPECTING THE

NEW PARLIAMENT BUILDINGS.

Presented to the Legislative Assembly,

By Command,

ARTHUR S. HARDY,
Secretary.

PROVINCIAL SECRETARY'S OFFICE,
TORONTO, 19th March, 1888.

RETURN.

CORRESPONDENCE subsequent to Return of February, 1882, *re* New Parliament Buildings.

DEPARTMENT OF PUBLIC WORKS, ONTARIO,
TORONTO, February 13th, 1888.

DARLING & CURRY, *Architects.*

DATE.	FROM.	TO.	SUBJECT MATTER.
1882.			
April 29	Darling & Curry	Hon. Com'r Pub. Works	*re* Remuneration for Services.
June 3	" "	" "	" " "
" 6	Secretary Pub. Works..	Darling & Curry.....	" " "
1886.			
Feb. 6	Darling & Curry	Comm'r Pub. Works ...	Asking for an Appointment.
" 8	" "	" " ...	*re* Employment of Mr. Waite.
" 8	Secretary Pub. Works..	Darling & Curry	*re* Com'r not able to name day for appointm't.
Oct. 26	Darling & Curry	Dept. Pub. Works	Account for Services.
" 27	" "	" "	" "
" 28	Secretary Pub. Works..	Darling & Curry	*re* Return of Plans.
Nov. 5	" " ..	" "	" "
" 10	Darling & Curry	Comm'r Pub. Works ...	*re* Settlement of Claim.
" 17	Secretary Pub. Works..	Darling & Curry	" "
1887.			
Feb. 28	" " ..	" "	*re* Interview proposed.
Mar. 8	Darling & Curry	Comm'r Pub. Works ...	Will not accept $4,000, etc., etc.
" 25	" "	" " ...	*re* Commissioner's Speech in House.
April 26	Secretary Pub. Works..	Darling & Curry	Statement of their case.
" 29	Copy of Order in Council	*re* settlement of their cla	ims for compensation, and Commissioner's declaration in relation thereto.

CORRESPONDENCE *RE* NEW PARLIAMENT BUILDINGS.

MAIL BUILDING, April 29th, 1882.

SIR,—We should feel very much obliged if you would at your earliest convenience take into consideration the question of the remuneration due to us for services rendered in connection with the new Parliament Buildings.

As the erection of the buildings is now apparently indefinitely postponed, and as the outlay on our part of time, labour and money in the preparation of the drawings has been heavy, we trust that our anxiety for a speedy settlement will not be deemed unreasonable.

Your obedient servants,

(Signed) DARLING & CURRY.

The Honourable
THE COMMISSIONER OF PUBLIC WORKS.

TORONTO, 3rd June, 1882.

SIR,—On the 29th of April last we wrote to you asking you if you would be kind enough to come to some conclusion respecting the remuneration which is due to us for our labour and outlay in preparing the contract drawings and specifications for the proposed new Parliament Buildings.

As it is three months now since the tenders were opened, and as we have had no reply to our previous letter, we venture to trouble you again about the matter.

The amount of time, labour and expense involved in the preparation of those drawings has been very great, while the interference and consequent loss to our ordinary business has been considerable, and we are therefore naturally desirous of receiving some pecuniary return for our trouble and outlay as soon as possible

Should press of business or other matters prevent your going into the question just at this time, would you pardon us for suggesting that perhaps you might find it possible to send us a cheque for payment on account; at any rate it would be doing us a great favour.

We are, sir,

Your obedient servants,

(Signed) DARLING & CURRY.

The Honourable
THE COMMISSIONER OF PUBLIC WORKS,
Toronto.

DEPARTMENT OF PUBLIC WORKS, ONTARIO,
TORONTO, June 6th, 1882.

GENTLEMEN,—I beg to acknowledge the receipt of your letter addressed to the Hon. the Commissioner respecting remuneration to be allowed you for the designs for the proposed new Parliament Buildings. The Commissioner is absent just now, but I will at once communicate with him respecting your letter.

Your obedient servant,

(Signed) WM. EDWARDS,
Secretary.

Messrs. DARLING & CURRY,
Architects, etc., Toronto.

Toronto, 6th February, 1886.

To the Honourable
The Commissioner of Public Works.

Sir,—We shall feel obliged if you would give us an appointment at as early a date as you may find convenient in order that we may have some conversation with you respecting our plans for the proposed new Parliament Buildings.

We are,

Yours obediently,

(Signed) DARLING & CURRY.

Toronto, 8th February, 1886.

To the Honourable
The Commissioner of Public Works.

Sir,—We venture to trouble you with this letter owing to certain reports which are very commonly current concerning matters connected with the proposed new Parliament Buildings, in the truth or inaccuracy of which we are naturally much interested.

It was reported to us about the middle of last week, on what we must consider very good authority, that Mr. Richard A. Waite, of Buffalo, had informed a gentleman who was calling at his office in that city, that he was busily occupied in preparing plans and working drawings for new Parliament and Departmental Buildings, proposed to be erected in Toronto by the Ontario Government, that the same were to be submitted for tenders in June next, that he had been officially commissioned by the Government to prepare the above mentioned drawings and specifications, and that he had in his possession a contract between himself and the Ontario Government to that effect.

We have since heard two other separate and distinct reports coming from Buffalo of the same character, and the matter is now becoming common talk.

It is difficult for us to believe that the above statements have any foundation in fact, as we have most certainly been led to believe from the first that in the event of the buildings being erected at all either one or the other of the two designs on which tenders were received three years ago would be adopted.

We are sure that you will pardon our asking you, in view of the above reports, to state as definitely as possible whether or not there exists any foundation for such rumors becoming current, or for Mr. Waite making such statements as he is reported to have done.

An early answer would much oblige.

We are, sir,

Your obedient servants,

(Signed) DARLING & CURRY.

Department of Public Works, Ontario,
Toronto, February 8th, 1886.

Gentlemen,—I am directed to acknowledge the receipt of yours of the 6th instant, and to say that the Commissioner is at present so much occupied with the business of the session that he is not able to fix a date with respect to the subject matter of your note; so soon as he can do so you will be communicated with.

Yours truly,

(Signed) WM. EDWARDS,
Secretary.

Messrs. Darling & Curry,
Architects, etc.,
Mail Building, King St., City.

Toronto, October 26th. 1886.

The Provincial Government of Ontario.

To Darling & Curry, Dr.

To preparing Plans and Specifications of proposed Parliament Buildings to be erected in the Queen's Park, 2½ % on the lowest tender, $612,000.00... $15,300 00

Toronto, October 27th, 1886.

To the Honourable
The Attorney-General of Ontario.

Sir,—We enclose our account for services rendered by us in the preparation of plans and specifications for the proposed new Parliament Buildings.

We would respectfully ask that you will give the same your immediate attention. We would also ask that all our drawings be returned to us at an early date.

We remain, sir,

Your obedient servants,

(Signed) DARLING & CURRY.

Department of Public Works, Ontario,
Toronto, October 28th, 1886.

Gentlemen,—Your letter to the Hon. the Attorney General (with its enclosure) has been transferred by him to this Department; and in reply thereto the Hon. the Commissioner directs me to say that the plans and specifications prepared by you for the then proposed new Departmental and Parliament Buildings will be delivered to you at any time they may be applied for, and a receipt given for same; or they will be sent to whatever place you may direct them to be sent to.

Your obedient servant,

(Signed) WM. EDWARDS,
Secretary.

Messrs. Darling & Curry,
Architects, etc., Toronto.

Department of Public Works, Ontario,
Toronto, November 5th, 1886.

Gentlemen,—In accordance with your request as contained in your letter of the 27th ultimo, I now send to you the following plans and drawings prepared by you for proposed new Parliament and Departmental Buildings for this Province, namely :—

(1) Large framed perspective drawing.
(2) In portfolio :—
Drawings numbered 1 to 13.
Tracings numbered 14 and 15.
Drawings numbered 16 to 18.
Drawings unnumbered, details of stair-case, etc.
Tracings numbered 10 to 13.

I send form of receipt for same which you will please sign and give to messenger for return to me.

Yours very truly,

(Signed) WM. EDWARDS,
Secretary.

Messrs. Darling & Curry,
Architects, etc., Toronto.

TORONTO, November 10th, 1886.

To the Honourable
THE COMMISSIONER OF PUBLIC WORKS.

SIR,—We would be glad if you would kindly give the question of the settlement of our account your earliest attention. Trusting to hear shortly from you concerning the matter, we are

Your obedient servants,

DARLING & CURRY.

DEPARTMENT OF PUBLIC WORKS, ONTARIO,
TORONTO, November 17th, 1886.

GENTLEMEN,—I am directed to acknowledge the receipt of your letter of the 10th inst., and to say, in reply, that the Commissioner had hoped during next week or the week after to come to a settlement of your claim in respect of Parliament Buildings plans, etc.

Urgent pressure of other matters may necessitate a little further delay; but the Commissioner is personally anxious to have the matter disposed of, and will at the earliest practicable moment fix a day for seeing you in respect to it.

Yours truly,

(Signed) WM. EDWARDS,
Secretary.

Messrs. DARLING & CURRY,
Architects, etc., Toronto.

DEPARTMENT OF PUBLIC WORKS, ONTARIO,
TORONTO, February 28th, 1887.

GENTLEMEN,—If convenient to you, the Hon. the Commissioner would like to see your Mr. Darling or Mr. Curry at this Department at 10 o'clock this a.m.

I should have notified you on Saturday, but overlooked doing so.

Your obedient servant,

WM. EDWARDS,
Secretary.

Messrs. DARLING & CURRY,
Architects, etc., Toronto.

8th March, 1887.

To the Honourable
THE COMMISSIONER OF PUBLIC WORKS FOR ONTARIO.

SIR,—The matter of your conversation with Mr. Curry on Monday, 28th February, has been most carefully considered, and we regret that we cannot see our way clear to accept the sum you then offered—four thousand dollars ($4,000.00)—in full of our account against the Government, and we confess to a feeling of surprise that you are able to justify to yourself a proposition so far beyond all reason and fairness.

Our account was made up on the usual basis adopted invariably by ourselves and all other men in good standing in our profession.

The very general and widespread acceptance of the custom has proved its fairness, while the universal decisions of the courts in its favour, in cases where it has been disputed, have practically made it law; you have yourself acknowledged its justice by agreeing to pay Mr. Waite the fees fixed by the same scale of charges, and we quite fail to see why, if the system be fair in his case, it should not be equally just in ours.

In your official communication to us, dated twenty-fifth March, 1881, in which you commission us to proceed with the preparation of the working drawings and specification in accordance with the sketches previously submitted by us for the proposed new Parliament Buildings, you refer to a conversation you had with me an hour or two before. In the course of that conversation, when speaking on the question of the payment, you said that it was the intention of the Government to deal fairly and liberally with us respecting the remuneration we were to receive for our labour; that they had every desire to do the fair thing in the matter, and that they fully intended to do it; that you were confident that we would ourselves be perfectly satisfied with the arrangement which would be made; and that we would be the last to complain of any unfair or ungenerous treatment. I distinctly recollect saying in reply that if the Government were going to do all this in the very liberal and generous fashion you mentioned, it would be more satisfactory and more gratifying to us if the terms were to be stated definitely at once, as we would naturally work with better heart if we knew exactly the position in which we stood financially. You declined, however, doing this, saying that for reasons which you would not explain to me in detail, it was thought desirable, in the interests of the Government, that the exact amount of money remuneration to be paid to us could not at that time be made public.

I had to be content with this, though regretting the uncertainty which prevailed as to money matters; and so I left you with no suspicion that difficulties might eventually arise on that score, as you had thoroughly impressed me during the interview with the idea that the Government was only too anxious to deal with us in the most fair and liberal spirit, and that we should find that the question of fees would be settled in a way that would be satisfactory to ourselves or to any man conversant with the value and importance of architectural work.

It was owing principally to the impression produced by this conversation, and to the fact that that conversation was referred to in, and connected with, the letter written shortly afterwards, that we were induced to proceed with the work, although the precise terms of our engagement, as set forth in your communication, were somewhat ambiguous. We had, however, the word and assurance of a Minister of the Crown that we would be treated fairly and honourably by the Government, and we naturally did not think that we need be afraid to venture. Had we imagined for one instant that there was any danger of our being subjected to the treatment that has since been meted out to us, we would never have dreamed of undertaking the work at all.

I must ask you to recall to your memory an interview I had with you in June, 1882, (this was after the tenders had been received) and I had written asking for information as to the position we occupied, and whether we could not be paid some money on account of our work. To this you sent a messenger, saying that you would see me at your office if I would call. I did so, and was told by you that you would be obliged if we would allow the matter to stand as it was for the present—that for reasons which you could not explain it was better for everybody that it should, and that it would be a convenience to the Government if we would forbear to press either for settlement or for remuneration at that particular time.

You asked me whether we had not been treated fairly and honourably, and whether all promises made by you had not been observed. Up to that date we had certainly found no cause of complaint, and I said so, and you then went on to say that, if we would leave the matter alone for the present and trust ourselves in your hands, we would have no reason to regret it; that we would be doing ourselves and our prospects no harm, but rather the reverse, and you gave me to understand that our position at that time was an excellent one in every way as regarded the proposed new buildings, and to attempt to force the Government to an explanation of it would only work to our injury. With that I left, feeling confident that our interests were in safe hands, and that we would have no cause to regret our confidence in your fairness.

Can you honestly say that if you had asked us to go on and design a building of the magnitude, elaboration and intricacy such as the one you wanted—to prepare the plans, working drawings and specifications, and have the same submitted for tender; and for all this work, skill and expense offer to pay us only the sum of four thousand dollars, just

one-fourth of the proper fees to which we would be entitled, and which we invariably get —that you think that you could have induced us to do it for you! The thing would have been simply preposterous, and you know it as well as we do.

You must remember, also, that we never asked favours of any sort from you at any time; every solitary bit of work which we have done for the Government has been done solely at their instance and at their own request. We entered the original competition and were beaten in it, and that closed the matter. We had no claim on the Government and the Government had no claim on us, and the subject, as far as we were concerned, stopped. The Government, however, sent for us; made certain changes as regards accommodation, removed the hard and fast money limit, and requested us to make rough preliminary pencil sketches of what we would propose to do in the way of a new building.

This we did; the sketches were submitted, talked over and approved of; apparently they suited admirably; certain small changes and alterations were suggested and carried out; then in the interview and letter of the 25th March, 1881, we were commissioned to go on with the working drawings; those drawings were overlooked and examined from time to time as they progressed by yourself and by the officials in your Department; changes and alterations of greater or less extent were made in the plans and specifications as they suggested themselves to your Department or to us. It was impressed upon us constantly during the progress of the work that notwithstanding that the Government understood fully that the half million dollars already voted by the House for the new buildings was insufficient, and that we were removed from the necessity of adhering to it; still we must bear that sum in mind, and not depart from it any farther than was necessary to insure the stability and soundness of the building, and make it complete in all its parts. The strictest economy had to be always considered; we could not do, nor were we allowed to do, the best we could, but only the best we could for the money. And we are confident that the manner in which we exercised this economy, and the way in which we expended the money in order to produce the best results, either in stability or in effect, will commend itself to the mind and judgment of any impartial competent man.

During the conversation already referred to of 25th March, 1881, you gave me the impression, if indeed you did not actually state it in so many words, that it was the firm intention of the Government, in case the building was proceeded with at all, that either our design or that submitted by Messrs. Gordon & Helliwell would be selected, and your speech in the House in March, 1885, confirmed that impression beyond a doubt.

The Government brought down at that time *bona fide* tenders for both sets of plans, sent in by competent and substantial firms. They obtained from the House an appropriation largely in excess of the sum required to erect and complete either set, and you stated then "that it was the intention of the Government to proceed immediately with the erection of the buildings on the lines of one or other of those two designs."

If, after that, the Government saw proper to change their purpose, and decided that our design was not large enough, important enough, or sufficiently grandiose to be commensurate with the wealth, size and dignity of the Province—that they had made a mistake, and now found that they would be justified in erecting a larger, more elaborate and costlier edifice, more substantial and more fire-proof in its construction, and more ornate in character—that was their own affair and no fault of ours, and it is a cowardly thing, and a dishonest thing, for the Government to make us a scape-goat for their mistakes, or because they had seen fit to alter their intentions.

Under these circumstances it would seem that the fair and manly thing for the Government to have done would have been to have taken the responsibility on their own shoulders, confessed that they were in error in keeping so closely to the side of economy, and explain the reason why it was better in the interests of the country that a more liberal policy regarding the expenditure of money on new buildings should be inaugurated, settled with Messrs. Gordon & Helliwell and ourselves for the work we had already done, and then from us two select the one whom it should be decided was the best able to carry out the wishes and intentions of the Government, take him into their confidence, explain to him their desires, and then tell him to go ahead and do the best thing he could and not cramp his ability for the sake of saving money.

We admit that in order to arrive at a conclusion as to which of the two competing firms it would be wisest to entrust the work, it was advisable, and we dare say necessary, that the Government should call in some impartial competent man with whom to take counsel; to that nobody could object, and perhaps we may be permitted to say here that up to this point in our dealings with the Government we have no complaints to make.

You may possibly consider that we are taking up matters that are over and done with and foreign to the business of the letter, but as they keenly affect our reputation and our professional standing, and as we have never yet had any opportunity of stating our side of the question, we trust you will pardon our introducing them.

It was owing to the very high terms in which the design submitted by us in the original competition in 1880, under the motto "October," was spoken of by the judges in the official report, that we were asked to prepare the drawings which have since been tendered upon. Mr. Waite was one of the judges in conjunction with Mr. Storm and the Hon. Alex. Mackenzie; the report was the joint work of the three.

The general scheme of the plan, as well as the architectural character of the elevation of that design, have been retained in those more complete and elaborate drawings which were again submitted to Mr. Waite for his judgment in 1885.

Yet, notwithstanding that, and also the fact that they were vastly improved by the amount of care and consideration given them in the meantime, he this time reports that they are so deficient in every way as to be quite unworthy of being erected, and also apparently must have expressed an opinion that we were unable to do any better, and that it would not be safe to entrust the work to us in any event.

If the design and general arrangement was good in the first instance (and three men said it was), it is equally good in the second, and had Mr. Waite been truthful he would have said so; but no! the position of affairs had changed, there were two other men associated with him in the first place—in the second he was alone! and he was shrewd enough to see the opportunity of which he has since so successfully availed himself. The drawings were in his possession for months, he had intimate knowledge of all the designs sent in for the original competition, he had the benefit of all our own experience, labour and skill; he had the advantage of close personal communication with the individual members of the Government; all their views, theories and suggestions were at his disposal, and he was in a position to make any recommendations he thought proper regarding increased accommodation, more expensive method of construction and more elaboration and richness of design; he could criticise as he thought fit, and in any way he thought fit, everything connected with the scheme, original arrangement, special points of planning, methods of construction and details, artistic or otherwise; he could, if it so pleased him, slur over its good points, belittle its merits, and magnify and exaggerate its faults. We were not in a position to defend ourselves or to contradict him; he had everything in his own hands; he was talking to non-professional men and could say and do pretty well as he liked.

It was on his report, we presume, that you rose on March 24th, 1886, and made a statement in the House to the effect, that the Government had been advised that neither of the designs, which had been tendered upon four years previously, were worthy of adoption; that Canadian architects had been given a fair chance to show what they could do and had failed ignominiously; and that, though the Government regretted it, still they felt it their duty in the interests of the Province, to seek an architect elsewhere, and consequently they had commissioned Mr. Waite, of Buffalo, to prepare plans and specifications, and had given him the work outright.

Such a proceeding can hardly commend itself to any honourably minded man when he recollects that this Mr. Waite is the man who had been acting in the capacity of professional adviser to the Government; and who, owing to the delicacy of his position, should of all men have been restrained by every principle of honour and decency from accepting the work under any circumstances whatever.

It appears, however, that he is to be employed; his remuneration being fixed definitely at once at five per cent.; the money limit, which was imposed upon him, was promptly annulled as soon as he found that he could not keep within it by at least one hundred per cent.; nor is it thought necessary that his design should be examined or

passed upon by any experts or unprejudiced persons competent to judge of its merits or demerits; and, while in our case it was insisted that every possible item should be included (even down to the price per yard of the paperhangings on the wall) in order that the exact total sum should be known from the beginning, and all danger from extras avoided as far as possible, he is allowed to obtain tenders for one trade only (mason and bricklayer, and incomplete at that) the lowest of which comes within but a trifle of the entire appropriation and as much as our whole building would cost complete and finished in all its parts.

If our plan has been criticised and reported upon on the basis of what might be done for a million and a half of dollars, we are not surprised that much fault was found with it; it was designed, however, as we mentioned before, with the fact always before us that it was absotutely necessary to include every possible detail, and still keeps as close to half a million dollars as could be managed; and we challenge the Government to submit our work to a tribunal of competent impartial men, and beg of them in the interests of justice and fair play to accept the challenge, and to publish the result—we are confident of our ability; confident of the general excellence of our design—and confident that the result will prove that Mr. Waite's strictures on our design are neither fair nor honest, and we here make the charge, most distinctly and emphatically; and will moreover prove it if the Government will give us proper legal place and opportunity, that Mr. Waite was and could not have been an unbiased and impartial judge; that he had his own purposes to serve; and that he intended from the first to use his position to that end, if he found it in any way possible.

In the meantime, we are dismissed ignominiously; our appeals for justice and fair treatment unheeded, and our claims for payment for our services ignored, unless an offer which bears so small a portion to the sum to which we are justly entitled—that the offering of it makes it almost an insult—can be called a recognition.

And, as if all this were not enough, you stand up in the House in your official capacity and besmirch and belittle our professional standing and ability in the most public way, and in such a manner as to make it impossible for us to reply; the official report on which you base these statements has never been made public, and you have also refused to allow us or any one else to see it, notwithstanding that we have complained, that owing to your action rumors have been current reflecting seriously upon our professional reputation; it has been said that our design was condemned because it would not have stood up if you had attempted to erect it, as well as other remarks of a somewhat similar nature.

You told Mr. Curry, however, on Monday last, that you knew of nothing which could be used as a foundation for such rumours, and that at any rate, as far as the Government were concerned, Mr. Waite had said or written nothing that could be construed as bearing such an interpretation. You said also that the report on which the Government had acted did not contain anything of the kind, and that in fact it was in the main verbal, and consequently could not be produced. We are curious to know, therefore, on what grounds the Government have acted as they have done.

We do not suppose for an instant that the Government are desirous of damaging our reputation wilfully and unnecessarily, and do not therefore think that we are asking too much when we request that you will, as soon as possible, undo as far as lies in your power, the damage and annoyance caused us by your action of last year; we have no objection to your exalting Mr. Waite as high as you please, but we do most strenuously object that that exaltation should be at our expense.

In conclusion, we can only say that while earnestly trusting that a peaceful settlement of the question may be arrived at, we are not by any means disposed to accept your present view of the matter. We consider that we have been most harshly, unfairly and ungenerously dealt with, and that the action of the Government has been cruel and cowardly in the extreme. We cannot say whether their promises have been broken in the letter (that will have to be settled elsewhere), but they most assuredly have been broken in the spirit. We are sick and tired of the whole miserable business; disgusted and disheartened at the treatment we have received, and are only anxious to have the matter

settled, if possible, without further delay, trouble or expense, and we offer without prejudice to our rights in the matter, whatever they may be, legal or otherwise, to accept a total sum of ten thousand dollars ($10,000.00) in full of our claim against you.

Trusting that your sense of fair play and honourable dealing will induce you to accede to the propositions contained in this letter, and grant us the favour of as prompt a reply as possible.

I remain, Sir,

Your most obedient servant,

FRANK DARLING,
For Darling & Curry.

Mail Buildings, Toronto.

Mail Building, 25th March, 1887.

To the Honourable
The Commissioner of Public Works.

Sir,—In your speech in the House on the 10th instant when opposing the motion for papers *re* the proposed new Parliament Buildings you made certain statements which we think call for some remark:—

First.—That we "had no claim to further consideration after it was proved by the tenders submitted for our design that it could not be built for the sum of five hundred thousand dollars ($500,000.00)."

We cannot see what the fact of the lowest tender being over and above that sum has to do with the matter; neither by implication, word of mouth, or by letter, document, or writing of any sort, kind, or description were we asked, or required to keep within that amount. On the contrary, we were informed both by the Honourable the Attorney-General and by yourself, that the money limit imposed on the original competition had been dropped; the Government realizing that they could not obtain what they wished for that sum. Mr. Mowat knew it; as I told him when he saw me in December, 1881, relative to our making the pencil sketches—that if we were to be rigidly confined to the half million appropriation we would decline undertaking the work. You knew it also; as the same understanding was arrived at in my conversation with you on March 25th, 1882, and the official communication from the Public Works Department of same date, wherein we were ordered to proceed with the preparation of the working drawings in accordance with the sketches, contains not one word about a money limit of any sort.

It was, however, understood, and that very clearly, that we were to keep that amount of money constantly in view, and not to exceed it further than we considered absolutely necessary. In March, '85, you bring down to the House *bona fide* tenders for the plans, saying that it was the intention of the Government to proceed immediately with their erection, provided that an appropriation of $750,000.00 was granted for the purpose. Not a word was said about our having put ourselves out of court, because the lowest tender came to more than half a million; and no matter what understanding or misunderstanding you may have been labouring under prior to that date, you cannot now use it as an excuse for throwing us overboard. To attempt to do so is neither fair in principle or in argument.

Second.—"You are reported in one paper as having said that our design could not be carried out for double the original appropriation—*i. e.*, one million dollars. In another that it would cost more than $750.000.00."

What you meant by this it is difficult to understand. You said in the House in March, '85, that every care had been taken in the preparation of the plans and specifications to avoid all chances of extras; and that the tenders submitted were from first firms, able and willing to carry out the work satisfactorily. The lowest tender was for $612,000.00 for the entire building, complete and finished in every respect. Why you should now say that the extras on that amount would range from one hundred and thirty-eight thousand ($138,000.00) to three hundred and eighty-eight thousand ($388,000.00) is more than we can imagine, and, we will venture to say, more than you can explain.

Third.—"You say that our correspondence is confidential, that it is incomplete, and that, consequently, it would be unfair to bring it down."

Pardon us for differing with you on all three points. It is distinctly not confidential; the wider publicity you give it the better we shall be pleased.

If it is incomplete (whatever you may mean by the expression) that is your fault and not ours. We have no desire to prolong it, and it is in your power to close it; but so long as you pursue your policy of not answering our letters, its quality of incompleteness may be continued indefinitely.

It is unfair not to bring it down; as by doing so, it closes the only avenue we possess of publicly defending our reputation, and speaking in our own defence.

Fourth.—"You say, 'that Mr. Waite's report is mainly verbal, and consequently it is impossible to bring it down, or to publish it; but that if we desired it, you will instruct Mr. Waite to draw up a report now, and will submit it to the House.'"

We desire nothing of the kind; though we have no objection to having our plans examined and reported on by any committee of unbiased, impartial and competent professional men, and will willingly and cordially agree to have that report submitted to the House, and published in any way you like, but we protest most strongly against Mr. Waite being now allowed to report on our drawings, as we do not believe ourselves, nor do we think that even the Government will be prepared to say that such a proceeding at this time, and under the circumstances, would be a just and proper course to pursue.

We desire, however, and consider that we have every right to ask, that the Government should produce the written official report sent in by Mr. Waite prior to the session of 1886; that such a document exists, both Mr. Mowat and yourself have admitted (though of course, we are not in a position to say as to how meagre, or how exhaustive it may be), we object, however, to its being supplemented by Mr. Waite at this late date, in any way whatever.

Allow me in conclusion to call your attention to the fact, that notwithstanding that our letter of the 8th instant asked for, and required an answer, we have not as yet been favoured with a reply nor even the usual and ordinary courtesy of an acknowledgement of its receipt.

I have the honour to be, Sir,

Your obedient servant,

FRANK DARLING,
For Darling & Curry.

DEPARTMENT OF PUBLIC WORKS, ONTARIO.
TORONTO, 26th April, 1887.

Messrs. DARLING & CURRY,
Architects, etc., Toronto.

SIRS,—I am directed by the Honourable the Commissioner of Public Works, to acknowledge the receipt of the letters of the 8th and 26th ultimo, written by your Mr. Darling on behalf of your firm.

The pressing and continually engrossing business of the session of the Local Legislature, which closed on Saturday last, has prevented an earlier answer to these letters.

To so much of them as is devoted to mere abuse of the Commissioner and the Government no answer is needed. Your firm professes to be greatly exercised and angered because of supposed injury to your professional reputation by the rejection of your plans, but you do not hesitate in these letters to utterly disregard what is decent and seemly when dealing with the public and professional reputations of those whose actions in the premises you claim to be fairly criticising. It may be that you are so "possessed" by your supposed grievance that you are not able to view or discuss the action and conduct of others, except through the distorted medium of your personal chagrin and disappointment; and it is only from some such charitable view as this that any excuse can be found for much which these letters contain. It is only of those portions of these letters

which are in any way pertinent to the question in controversy between your firm and the Government that the Commissioner proposes to take notice. And, accordingly, I am now instructed to reply that the proposed payment to your firm of four thousand dollars for the actual services rendered by you, was quite within reason and fairness; that Messrs. Gordon & Helliwell are your equals in all respects, in their profession and standing, that these gentlemen did precisely the same work, both in character, quantity, etc., as was done by your firm, and for their work so done they never demanded more than $1\frac{1}{4}$ per cent. on the amount of the lowest tender based upon their plans, and have finally accepted in full of all their demands a present sum of $5,000, which represents, as nearly as may be, $3,700 with interest since March of 1882, the date at which tenders were received by the Department; that your first demand was for $15,300 *or* $2\frac{1}{2}$ per cent. on the amount of the lowest tender received in connection with your plans, or more than twice the amount asked by your fellow competitors (Messrs. Gordon and Helliwell), whose "good standing" in your profession is, at least, equal to your own. The Commissioner deemed your demand exorbitant and excessive, and it was only less, but nevertheless still exorbitant and excessive when you condescended to name $10,000 as the sum you would be willing to accept by way of alleged compromise.

In the letter of the 8th ultimo, you refer to a conversation had with the Commissioner in March of 1881, and allege that, in that conversation, the Commissioner said to your Mr. Darling that for reasons which he (the Commissioner) could not explain to him (Mr. Darling) in detail, it was thought desirable in the interests of the Government that the exact amount of money remuneration to be paid to your firm should not at that time be made public. I am directed to say that nothing said by the Commissioner could in the least justify Mr. Darling placing such an interpretation upon the Commissioner's language. As plainly as it could possibly be made, Mr. Darling was told by the Commissioner that in the event of the Provincial Buildings not being constructed on your plans, the amount of the remuneration to be paid your firm for their work, etc., in the premises, would rest entirely with the Commissioner; and that there might be no mistake upon this point, precisely similar letters were written on the 25th March, 1881, to your firm and to Messrs. Gordon & Helliwell. It was, of course, the intention of the Government then, as it has been ever since, to "deal fairly and liberally with your firm respecting the remuneration you were to receive for your labour," but the Government has never proposed to itself to submit to the exorbitant claim made by your firm.

You also refer to a conversation had by Mr. Darling with the Commissioner in 1882, after the tenders on your plans had been received, and after the receipt by the Department of your letters of the 29th April, 1882, and 3rd June, 1882. With reference to this as to the other conversation already referred to, Mr. Darling's memory misleads him into misinterpreting what the Commissioner said. The Commissioner did then say, in effect, that he would be obliged if your firm would allow the matter of your remuneration to stand, that it was likely that the Legislature would be asked for an additional appropriation for the proposed new buildings; that, in the event of the amount of the appropriation being increased, he hoped that one or other of the designs prepared by your firm, and that of Gordon & Helliwell might still be selected, and that from this view of the matter it would, in the opinion of the Commissioner, be better to permit the question of remuneration to remain undisposed of for the present. But the Commissioner did not say, nor could he fairly have been understood by Mr. Darling to say, as asserted in your letter that "*for reasons which the Commissioner could not explain*, it would be "better to allow the matter of remuneration to stand," or that "it would be a *convenience* to "the Government if your firm would forbear to press either for settlement or for remunera-"tion at that particular time"; or that "if your firm would leave the matter alone for "the present, *and trust yourselves* in the hands of the Commissioner, you would have no "*reason to regret it.*" There never was, then or since, any reason for asking that the question of your remuneration be allowed to stand, beyond what the Commissioner fully made known to Mr. Darling, nor would it then or since have been a *convenience* to the Government that your firm would forbear to press for settlement or remuneration beyond this merely, that if the plans of either your firm or that of Gordon & Helliwell were afterwards selected, the Commissioner would be saved the personal trouble of deciding and

settling more than the remuneration or compensation to be paid to the one firm whose plans were not accepted. In this connection your letter says that the Commissioner "asked Mr. Darling whether or not" your "firm had not been treated fairly and honour- "ably, and whether all promises made by the Commissioner had not been observed?" and adds that, up to that date, your firm had certainly found no cause of complaint, and that Mr. Darling said so. Mr. Darling ought not, in a matter of this kind, to permit his imagination to run away with him. The Department and the Commissioner had prior to your entering upon the preparation of your new plans only one transaction with your firm, namely, *the rejection of your plans sent in under the terms of the original competition;* and the only other matter with respect to which your firm had had dealings with the Department was the preparing of your new plans, and the only promises made in that regard are those to be found in my departmental letter to your firm of date 25th March, 1881, and which you now say (in effect) have not been complied with. There were no other promises to be "observed;" and it would, therefore, be obviously a foolish and silly thing for the Commissioner to speak of having "observed" promises when none had then been made.

In your letter of the 26th ultimo, complaint is made that the Commissioner had said in the House of Assembly (on the 10th ult.) that your firm "had no claim to further "consideration after it was proved by the tenders submitted for your design that it could "not be built for the sum of five hundred thousand dollars," and you go on to say that you "cannot see what the fact of the lowest tender being over and above that sum has to "do with the matter, neither by *implication*, word of mouth, or by letter, document or "writing of any sort, kind or description, were we asked or required to keep within that "amount"; that, on the contrary, you "were informed both by the Honourable the Attorney- "General and the Commissioner that the money limit imposed in the original competition "had been dropped," etc., and your letter adds, in effect, that the Commissioner knew that you would decline undertaking the work of preparing plans if you were to be confined to the half million appropriation. The best answer to your contention that the half million appropriation was not to be adhered to is to be found in your letter of the 8th ultimo, in which you say "the strictest economy had to be always considered, we could not do, "nor were we *allowed* to do the best we could, *but only the best we could for the money.*" For what money did your firm understand you were to do the best? was it for some unfixed sum to be settled by your own notion? Certainly and manifestly not, but only for the half million appropriated by the Legislature, and with respect to which, in the same letter, though you profess that you "were removed from the necessity of adhering to it and were not to depart from it any further than was necessary to ensure the stability and soundness of the building," etc., you say "it was impressed upon us constantly during the progress of our work that we must bear that sum of half a million in mind," that (*vide* your letter of 8th ultimo), you prepared your plans, etc., "with the fact "always before us that it was absolutely necessary to include every possible detail, *and "still keep as close to half a million dollars as could be managed,*" and that (*vide* your letter of 26th ultimo) "it was understood *and that very clearly*, that we were to "keep "that amount of money (meaning the half million) constantly in view." The Commissioner, however, did not say in the House what some of the newspapers reports indicate. What he did say was, in effect, that neither your firm nor that of Gordon & Helliwell, after it had been ascertained by the receiving of the tenders that buildings based upon either set of plans could not be erected for the half million appropriated, had any further claim as a matter of right to have your plans considered, that in that respect it was entirely in the discretion of the Government to ask for new plans, that the only rightful claim which either yourselves or Gordon & Helliwell had was to be remunerated for the work you had done upon and under the terms and conditions of the letter of 25th March, 1881, that if the Government saw fit to subsequently entertain or consider your plans, it was not because of any right you had in the premises, and that you had not, by reason of any action taken by the Government subsequent to the reception of the tenders, been put to a dollar of loss either in time or money. That your firm then so understood the matter and did not venture to assert any claim except in respect of your remuneration, etc., is evidenced by your letter to the Commissioner of date 29th April, 1882, in which you say,

"We should feel very much obliged if you would, at your earliest convenience, take into "consideration the question of the remuneration due to us for services rendered in connec- "tion with the New Parliament Buildings. As the erection of the buildings is now "apparently indefinitely posponed, and as the outlay, on our part, of time, labour and "money in the preparation of the drawings has been heavy, we trust that our anxiety for a "speedy settlement will not be deemed unreasonable;" and it is further evidenced by "your letter to the Commissioner of date 3rd June, 1882, in which you say: "On the 29th "April last, we wrote to you asking you if you would be kind enough to come to some "conclusion respecting the remuneration which is due to us for our labour and outlay in "preparing the contract drawings and specifications for the proposed new Parliament "Buildings. As it is three months now, since the tenders were opened, and as we have had "no reply to our previous letter, we venture to trouble you again about the matter. . . . "Should press of business or other matter prevent your going into the question just at this "time, would you pardon us for suggesting that, perhaps, you might find it possible to send "us a cheque for payment on account." Nowhere in these letters did your firm pretend to claim that you had any right to demand that your plans should be further acted upon or considered by the Government. It is true that when the Legislature was asked to appropriate $750,000 for the erection of the proposed new Parliament Buildings, the Commissioner stated the expectation of the Government to proceed upon one or other of the two sets of plans prepared by your firm and Gordon & Helliwell. But the Commissioner's statement to the Legislature did not, and does not justify your firm claiming that the Government having subsequently decided otherwise is a violation or breach of any right of yours. That statement gave you no larger or greater right than your firm already possessed, and you never, because of that statement, did a moment's work or expended a cent of money, or in any way altered your position to your prejudice or detriment.

When in your letter of 8th ultimo, Mr. Darling says that, prior to an interview had with the Commissioner in June, 1882, he "had written asking for information *as to the "position we* (meaning your firm) *occupied*," and whether we could not be paid some "money "on account of our work," he deliberately misquoted the contents of your letters of 29th April, 1882, and 3rd June, 1882, neither of which, even by hint or suggestion or implication, asked for any information *as to the position your firm then occupied*, but only demanded that the amount of your remuneration should be settled and paid.

With reference to your further quotations from newspaper reports as to what the Commissioner is alleged to have stated in the Legislative Assembly, I am directed to say that the Commissioner declines to be held responsible for the accuracy of any report given. He did not say that your design could not be carried out for double the original appropriation, but he did say that it would cost more than $750,000. Nor did he say that your correspondence was "confidential," but he did say that the correspondence was incomplete; that the answer of the Department to your letters had not been made; and that, therefore, it would not in his opinion be fair to bring down to the Legislature only one side, and that your side, of the correspondence. The only matter which the Commissioner spoke of as being "confidential" was Mr. Waite's report on the plans, and the report of Mr. Tully, the Chief Architect of the Department, confirming and corroborating Mr. Waite's report, both of them agreeing that your plans were defective and unsuitable; and in this opinion the members of the Government, after a most careful and thorough consideration, have unanimously concurred. In this regard I am instructed to say, as has already been said to Messrs. Gordon & Helliwell, that if your firm desire the publication of reports by the expert and by the Departmental Architect upon the alleged defects in your plans, the Commissioner will take the necessary steps for their being produced to the Legislature and published in the usual way; but this will not be done unless at your express instance and request. I am further instructed to say that a fair summary of the material facts bearing upon your claim shews:

(1) That by my letter of 25th March, 1881, addressed to your firm, you were notified that you were distinctly to understand that it was intended to ask for tenders on plans and specifications other than yours; that it was to be in the discretion of the Commissioner not to ask for tenders based upon your specifications, etc.; that in such event your recompense therefor was to be such only as the Commissioner might fix and

determine upon; that if, on tenders being asked for, an actual contract was *bona fide* entered into for the construction of the buildings upon your plans and specifications, your fees would be such as might be mutually agreed upon; that failing any such contract your compensation in respect of such plans and specifications, and all work and services in connection therewith, would be such only as the Commissioner should, having due regard to the circumstances, deem to be right; and that the entering into any such contract was to be understood as not depending upon the nature or amount of any tender received, but to rest entirely in the discretion and judgment of the Commissioner;

(2) That your reply to my said letter of 25th March, 1881, was made on the 28th of the same month, and was an acceptance of its terms and conditions without any qualification whatsoever;

(3) That subject to the foregoing, tenders were advertised for in January, 1882; that the lowest tender based on your plans was largely in excess of the amount then appropriated by the Legislature for the erection and completion of these buildings, and that no tender was accepted and no contract entered into;

(4) That, consequently, under the terms of the letters above quoted, your firm was not then, and has never since been, entitled to ask or insist that the Government should call for further tenders or take any further or other action based upon your plans, or should thereafter adopt them in connection with the erection of the buildings;

(5) That the sole right your firm then had was (as per terms of my Departmental letter of 25th March, 1881,) to have such compensation in respect of your plans and specifications and all work and services in connection therewith, as the Commissioner should, having due regard to the circumstances, deem to be right;

(6) That your firm then so understood and acquiesced is evidenced by your letters of 29th April, 1882, and 3rd June, 1882, from which I have already quoted.

(7) That in submitting your plans to tender their absolute suitability for the purposes of the new buildings was not recognized, because had the tenders received been within the amount of the appropriation an expert's examination of the two sets of plans upon which tenders had been asked would then have been entered upon before the Commissioner would have decided any question relating to the letting of a contract, etc.; and

(8) That, when in 1885 an increased appropriation for the erection of these buildings was granted by the Legislature, there was nothing in the agreement upon which your firm had originally prepared plans, etc., to entitle you to demand that your plans should be further considered or dealt with; new plans might then have been received in any way which the Government deemed best; and that, under the changed circumstances and after such a lapse of time, steps were taken to secure expert examination of your plans, so as to determine whether or not they could be adopted, in no wise either prejudiced your firm, altered your position, or changed the character or amount of the compensation to which you might be entitled. All right to demand or require action upon your plans ceased early in the year 1882.

In conclusion, I am directed to notify you that under and pursuant to the terms and conditions set forth in the letter addressed by me to your firm, and dated the 25th day of March, 1881, and which terms and conditions were unconditionally accepted by your firm by letter dated the 28th day of March, 1881, the Commissioner has to-day by formal instrument in that behalf declared and determined that the sum of $5,000 (being the same amount as has been paid to and accepted by Messrs. Gordon & Helliwell) shall constitute and be the compensation to be paid to your firm for all claims and demands which you may or can have in respect of your work and services in the preparation of the plans, detailed statements, specifications, etc., on which tenders were invited for the construction of the proposed new Provincial Parliament and Departmental Buildings, and that a cheque for the said $5,000 will be forwarded to your firm in due course from the Department of the Provincial Treasurer.

I am, gentlemen,

Your obedient servant,

(Signed) W. EDWARDS,
Secretary Public Works.

Copy of an Order in Council approved by His Honour the Lieutenant-Governor, the 29th day of April, A.D. 1887.

The Committee of Council have had under consideration the report of the Honourable the Commissioner of Public Works, dated the 26th day of April, 1887, wherein he states that by instrument of that date (a copy whereof is attached to the said report), he has formally declared and determined that the sum of five thousand dollars shall constitute and be the compensation to be paid to Messrs. Darling & Curry for all claims and demands which they may or can have in respect of their work and services in the preparation of the plans, specifications and detail drawings for the construction of the proposed New Parliament and Departmental Buildings for the Province. The Commissioner recommends that a warrant for the said sum of $5,000 be issued in favour of Messrs. Darling & Curry, in full payment of all claims and demands which they may or can have in respect of their work and services aforesaid.

The Committee concur in the report of the Commissioner and advise that the recommendation contained therein be acted upon.

Certified.

(Signed) J. LONSDALE CAPRÉOL,
Asst. Clerk Executive Council,
Ontario.

Department of Public Works, Ontario,
Toronto, 26th April, 1887.

Whereas the undersigned hath this day by instrument (a copy whereof is hereto annexed) formally declared and determined (as set forth in said instrument) that the sum of five thousand dollars shall constitute and be the compensation to be paid to the Messrs. Darling & Curry mentioned in said instrument, for all claims and demands which they may or can have in respect of their work and services in the preparation of the plans, detailed statements and specifications in said instrument particularly referred to.

Therefore, the undersigned begs to recommend to His Honour the Lieutenant-Governor in Council that a Warrant do issue in favour of said Darling & Curry for the said sum of five thousand dollars in full payment of all claims and demands which they may or can have in respect of their work and services aforesaid.

(Signed) C. F. FRASER,
Commissioner of Public Works.

In the matter of the claim made by Messrs. Darling & Curry, of the City of Toronto, Architects, for the preparation of plans, detailed drawings, and specifications on which to advertise for tenders for the construction of new Parliament and Departmental Buildings for the Province.

Whereas, in pursuance of an arrangement entered into between the undersigned acting therein on behalf of Her Majesty, the Queen, and the said Darling & Curry, it was agreed that the said Darling & Curry should prepare and submit certain plans, specifications, and detailed drawings for the purpose of inviting tenders thereon for the construction of the proposed Parliament and Departmental Buildings for the Province of Ontario.

And whereas, it was agreed, that if on tenders being asked for, an actual contract was *bona fide* entered into for the construction of the said buildings in accordance with the said plans, details and specifications, the fees to be paid to the said Darling & Curry for their labour time, and professional skill, in connection with the preparation of such

plans, details and specifications, should be such as might be mutually agreed upon; and in the event of no such contract being entered into, then the compensation to be paid to the said Darling & Curry for such work and services should be such only as the undersigned, having due regard to the circumstances, should deem to be right.

And whereas, said terms and conditions are set forth in a communication from the undersigned, dated the 25th day of March, 1881, addressed to the said Darling & Curry, and signed by the Secretary of the Department of Public Works for Ontario.

And whereas, such terms and conditions were unconditionally accepted by the said Darling & Curry on the 28th day of March, 1881.

And whereas, in pursuance of said agreement, the said Darling & Curry prepared and submitted certain plans, specifications and detailed drawings for the purposes aforesaid, upon which tenders were invited; but no contract was entered into for the construction of the said buildings in accordance with the said plans, detailed drawings and specifications.

And whereas, the entering into of any such contract was, by such agreement, left entirely in the discretion and judgment of the undersigned, and was not in any way dependent upon the nature or amount of any tender received.

And whereas, the undersigned has considered all the circumstances in connection with the premises, and deems it expedient to fix the compensation to be paid to the said Darling & Curry for their said services.

Be it known, therefore, that the undersigned, the Commissioner of Public Works of the Province of Ontario, doth hereby declare and determine that the sum of $5,000 shall constitute and be the compensation to be paid to the said Darling & Curry for all claims and demands which they may or can have in respect of their work and services in the preparation of the plans, detailed statements and specifications aforesaid.

Dated this 26th day of April, A.D. 1887.

(Signed) C. F. FRASER,
Commissioner of Public Works
for Ontario.

Witness,
WM. EDWARDS,
Secy. Dept. Pub. Works.

FIFTH ANNUAL REPORT

Of the Inspector of Public Legal Offices for the Province of Ontario, for the year 1887.

Presented to the Legislative Assembly,

By Command.

A. S. HARDY,
Secretary.

Provincial Secretary's Department,
20th March, 1888.

FIFTH ANNUAL REPORT

OF THE

INSPECTOR OF LEGAL OFFICES.

The Honourable Oliver Mowat,
Attorney-General of Ontario, etc., etc., etc.

Sir,—I have the honour to present this Fifth Annual Report on the inspection of the Public Legal Offices throughout the Province, for the year ending the 31st December, 1887.

The following changes have taken place in the *personnel* of the officers during the year, namely :—

Sheriffs.—The late J. D. Merrick, Esq., who died on the 30th of March, 1887, has been succeeded by the appointment of Albert Hagar, Esq., on the 7th of April, 1887, as Sheriff of the United Counties of Prescott and Russell. The late Joseph A. Woodruff, Esq., has been succeeded by the appointment of T. C. Dawson, Esq., on the 25th June, 1887, as Sheriff of the County of Lincoln. The late Thomas Paxton, Esq., who died on the 3rd June, 1887, has been succeeded by the appointment of John F. Paxton, Esq., on the 6th of July, 1887, as Sheriff of the County of Ontario. The Hon. Peter Gow has been succeeded by the appointment of Robert McKim, Esq., on the 18th October, 1887, as Sheriff of the County of Wellington. The late F. W. Jarvis, Esq., Sheriff of the County of York, died on the 16th April, 1887, and the City of Toronto being separated from the County of York, Fred Mowat, Esq., was appointed on the 30th April as Sheriff of Toronto.

The late George J. Duncan, Esq., Sheriff of Welland and the late John F. Clarke, Esq., Sheriff of Thunder Bay District, respectively died on the 20th April, 1887.

County Attorneys.—The late Frederick Fenton, Esq., has been succeeded by the appointment of George W. Badgerow, Esq., on the 26th March, 1887, as County Attorney of the County of York. H. H. Loucks, Esq., having resigned his offices as County Attorney and Clerk of the Peace of the County of Renfrew has been succeeded by the appointment of John H. Metcalf, Esq., on the 18th August, 1887.

Local Masters.—His Honour Judge Daniell, Local Master at L'Orignal died on the 24th May, 1887. His Honour Judge Clarke resigning his position as Local Master at Cobourg, has been succeeded by the appointment of J. H. Dumble, Esq., on the 22nd November, 1887.

Local Registrars.—S. S. Lazier, Esq., having resigned his office as Deputy Registrar of the Chancery Division of the High Court of Justice at Napanee, the position was filled by Mr. J. B. McGuin, Deputy Clerk of the Crown becoming Local Registrar by virtue of the *Judicature Act*, but he having died on the 30th May, 1887, was succeeded as Local Registrar, County Court Clerk, and Registrar of the Surrogate Court of the County of Lennox and Addington by the appointment of Mr. W. P. Deroche on the 11th June, 1887.

Sheriffs' Offices.

In my inspection of these offices during the past year I found that some of the officers still continued making overcharges, and also neglected to make proper entries in their Fee, Cash and Execution Books, and the book required to be kept by the *Creditors' Relief Act*; I also found that in one or two cases Execution moneys had been retained longer than they should have been. The most frequent overcharges that are still continued are: (1) Affidavits of service of writs in County Court actions. The tariff includes the affidavit of service in these actions in the fee for service of writ. (2) Return of subpœnas. The tariff allows fee for return of all process and writs *except* subpœnas. (3) A charge that is frequently made and which has been referred to in my former reports is poundage on the whole amount of the moneys realized instead of the sum paid over. (4) In one or two offices I found that the Sheriff still collected a fee, varying from $2 to $10, for transcript of Division Court judgment, notwithstanding no fee whatever should be collected. (5) The fees for receiving and returning the lands-writ have frequently been added to the fees on the goods-writ when the money had been made under the goods-writ. No fee whatever should be charged in connection with the lands-writ when money is made out of goods. (6) I also found that one Sheriff at least charged mileage in going to seize goods, posting up notice, and in going to sell, instead of one charge for going to seize and sell. The above overcharges, I am pleased to state, occurred only in three or four offices. In all other cases I found the charges made were according to the tariff.

In a number of offices I found that the entries made in the books were not as full as they should be. In fact, notwithstanding my frequent instructions to some of the Sheriffs, I found that the amount of moneys received by them, the date when, and from what source received, and to whom, and when paid out, and the fees incurred were not entered in detail; thus making a thorough inspection much more difficult than it should be.

In several cases I found moneys incorrectly entered in the book kept under the *Creditors' Relief Act*. No moneys should be entered in this book unless received by the Sheriff from actual sale or the amount received is less than the amount of the executions in his hands. Moneys received in full of execution without actual sale should, as soon as received, be paid over to the parties entitled.

In other cases, which properly came within the Act, I found that entries which should have been made in this book were not so made, and that the amounts levied, as well as the date when levied, were sometimes omitted.

In a great number of offices I found that not only the fee book but also the cash book had not been added up, and that entries in them were not made daily. Frequently renewals of *Fi. Fas.* are not entered anew in the execution book when received, but their receipt merely written across or entered on the first or original entry of the writ in the execution book. It has also occurred that neither process nor *Fi. Fas.* have been numbered consecutively beginning with No. 1 each year. In several offices the folios of the execution or process books were not entered in the cash or fee books so as to connect the entries and make the inspection more readily accomplished.

The above instances not only prove carelessness on the part of some of the officials, but also occasions difficulty in inspection as well as in the performance of the officers' duties, and makes frequent inspection essential. In all cases where overcharges and irregularities occurred, I impressed upon the officers the great necessity of having their duties performed more efficiently and their books kept more intelligently and carefully.

In Appendix A I have set forth in tabulated form statistical returns made by the Sheriffs to me for the year 1887.

I also have the honour to report that I have enquired into the sufficiency of the securities given by these officers, and where I found them to be insufficient have had new and sufficient covenants entered into.

LOCAL MASTERS.

In two or three offices I still found difficulty in making a thorough or satisfactory inspection in consequence of entries not having been made in the Master's Docket, or their fees entered in cash book or docket. I trust, however, that my instructions in these cases will be followed in the future.

In two offices I found that orders had been signed with lead pencil by the Local Masters, and in one case evidence had been taken in the same way, and that the Master had proceeded with a reference under a judgment for partition made and signed by himself without having had it entered or stamped. Only in one or two offices did I find any overcharge, as follows: (1) One dollar and a half for settling minutes of judgment. This charge was made as if a reference had been made to the Master to settle a judgment and is incorrect. (2) In a case of a mortgage action the defendant filed an appearance for the purpose of disputing the amount of plaintiff's claim, whereupon the plaintiff's solicitor, instead of applying to the Local Registrar to take the account and issue the judgment under the Rules, applied to the Local Master for and obtained an order referring it to the Master to take the account. The Master accordingly took the account at an expense of $6.50, and issued a report on which the plaintiff's solicitor moved for an order to set aside the appearance of defendant, which was granted with costs to plaintiff, which were taxed to him with the additional costs of proving his claim before the Master. (3) Filing vouchers produced in support of receiver or executor's accounts, instead of initialing them and handing them back. (4) Correspondence produced and read but not marked as an exhibit to save expense, but handed back to solicitor producing same without an order, yet charged as 29 filings $2.90. I found that frequently the Local Master required the affidavits in support of applications made before him to be filed with him. All such affidavits should be filed with the Local Registrar, whose duty is to attend before the Local Master with them before the return of the motion.

Notwithstanding General Orders 211 to 257 of the Court of Chancery, which still regulate the proceedings of the Master's offices, I found that some Local Masters do not always devise or adopt the simplest, most speedy and least expensive method of prosecuting references before them, but that adjournments are too readily made and warrants unnecessarily issued, the result being that costs are largely increased. In one action of partition where the property was valued at $800.00 and sold for $725.00, the commission was fixed at $111.25, and costs and disbursements in addition thereto were taxed at $753.48, making $864.73 as the cost of realizing $725.00.

Notwithstanding my instructions I found that on taxation some Masters still occasionally allowed improper items of fees and charges to solicitors. The following are instances of such improper allowances:

(1) Instructions for suit, $3 allowed, where the solicitor issuing the writ was himself the plaintiff.

(2) Writ endorsed claiming interest at 10 per cent. per annum, plaintiff obtained an order to amend and amended the endorsement by making the interest 6 per cent., yet the Master in taxing the costs allowed the costs of obtaining the order and amending the writ, although no costs were mentioned in such order.

(3) Allowing drawing affidavit of non-appearance, 2 folios, 60 cents; attending swear and paid, 70 cents, instead of allowing the fee of $1, as given by the tariff.

(4) Allowing as costs for proving claim $8, and $2.70 for Master, being $1.50 for hearing and $1 taxing and 20 cents filings, instead of allowing only $8 for fees and disbursements, and charging only $1.70 as a fee for hearing and filing as Master not entitled to charge for taxation where costs fixed. All costs under $30 should be fixed, and not taxed by the Master, unless directed by an order to tax them. In one case where the Master allowed the defendants disbursements at $1.20, he charged $1 for taxing this sum.

(5) Allowing drawing affidavit on which to have pleadings noted in default, 5 folios, being $1.50; swearing and paid, 70 cents; attending filing and paid, 60 cents;

attending note, $1 ; paid, 30 cents; fee after noting, $1 ; amounting in all to $5, instead of merely allowing attending note, pleadings in default, 50 cents ; paid filing, 10 cents.

(6) Drawing bill of costs, 17 folios, $3.40, and copy for Master, $1.70, instead of allowing only $3.40, to include copy for Master, as per item 156 of tariff.

(7) Allowing perusing letters in a solicitor and client bill of costs 50 cents each. Not allowable.

(8) Where the fiat of a taxing officer was produced granting one counsel fee of $30 at the hearing the Master incorrectly allowed two counsel fees of $20 and $10 respectively, so as to permit the solicitor to charge and collect fees for two briefs.

I have, in Appendix B, set forth the statistical return of the business transacted by the Local Masters during the year.

Local Registrars, Deputy Registrars, Deputy Clerks of the Crown and County Court Clerks.

I have unfortunately still to complain against taxations by several of these officers as being very unsatisfactory, notwithstanding my frequent instructions as to items to be allowed or disallowed.

In two or three instances I found that entries in their books had not been regularly or fully made, and that several judgments and orders had not been entered at the time of my inspection.

The fees charged by these officers have been as a rule correctly made.

The following examples are instances of the sums erroneously allowed on taxation by these officers : Notice of writ for service out of jurisdiction, $1 ; copy of notice to serve, $1; item 9 of the tariff only allows $1 for both of these charges. Attending serve writ of summons, $1 ; allowed when served by solicitor, notwithstanding item 14 of the tariff. Affidavit to obtain fiat for counsel fees unnecessarily allowed, judgment roll, $1 ; judgment, $1 ; fee on judgment, $1 ; all allowed, instead of the last two items only. Perusing affidavit on production allowed, although not 20 folios long. Entering judgment on balance of account for $257 and taxing full costs on the High Court scale in the absence of an affidavit that account not liquidated, as required by Section 153, Chap. 50, R.S.O. Allowing attending settle judgment in default of appearance, $1 ; attending enter same, $1; allocator, 50 cents, instead of allowing only attending enter judgment, 50 cents. Allowing attending Registrar for appointment to settle minutes of judgment where action dismissed, 50 cents ; paid, 50 cents ; copy, 10 cents ; attending to serve, 50 cents ; attending settle, $1 ; paid, $1 ; none of these charges are correct, as there is no need of notice of settling or attending settling a judgment, which simply dismisses the action. Allowing postea, $1, besides judgment roll, $1.50, instead of allowing judgment, $1, for both items. Bill of costs, 10 folios, $2; copy to tax, $1 ; both allowed, instead of allowing $2, under item 156 of the tariff.. Erroneously taxing costs in an action of ejectment in default of appearance on the affidavit of plaintiff's solicitor of adverse possession, in which he states that "I am informed and believe." Allowing affidavit proving mortgage debt and account where writ is specially endorsed. Entering judgment on an affidavit of service of writ sworn to by a marksman, notwithstanding Rule 44, and R.S.O., Chap, 50, sec. 25. Allowing costs of a *lis pendens* in an alimony suit, and also in a suit where plaintiff claimed to be a creditor of the defendant, and endorsed his writ claiming the amount of his account and stating that the defendant is owner of certain lands (describing them) and threatens, attempts and intends, unless prevented by order of court, to fraudulently convey the said lands to some third party with intent and design to defeat, delay and hinder his creditors and plaintiff in particular from recovering payment of their claim against him, and praying for an order to issue restraining defendant from fraudulently conveying said lands to the prejudice of his creditors. A certificate of *lis pendens* should not have been issued to the plaintiff by the Local Registrar in such a case, and much less should the costs have been allowed against the defendant.

A solicitor having sent a copy of the pleadings by post to the Local Registrar to be certified, made the following charges in his bill of costs and was allowed them by the Local Registrar: Letter with copy pleadings to agent to get certified by Local Registrar and postage, 56 cents; agents attending and paid, $1.50; agent's letter, returning and postage, 56 cents. It is the duty of officers to refuse to receive papers through the post from solicitors and act for them as agents, and in doing so they are guilty of contempt of court in disobeying one of the Rules expressly forbidding them so acting; they commit an additional wrong in allowing fees to the solicitor for services performed by the officer.

Allowing instructions for brief on application for order for security of costs, $2; brief, 11 folios, $2.60, neither of which should have been allowed. Allowing solicitor $1 attending computation of interest on promissory note; the tariff does not permit this being done. I found that counsel fees had been frequently allowed without the production of fiat, and in one instance two counsel fees were allowed, as follows, 1st counsel, $50; 2nd counsel, $30, by agreement of the solicitors; no costs or fees should be allowed on consent of solicitors. Allowing attending chambers on return of motion, $2, and fee to counsel $5 in addition; only one fee should have been allowed upon the motion, and fiat must be signed by one of the taxing officers in Toronto, or the Master-in-Chambers or the Master-in-Ordinary, not by the local Judge, Local Master or Local Registrar. Allowing affidavit of mileage, $1, although no mileage sworn to in affidavit of service by Sheriff.

In two or three cases I found that the officer had not fyled or charged for fyling fiat for counsel fees or were the consent minutes of judgment signed by counsel filed, and that affidavits fyled at the assizes were not stamped, and that examinations taken by the officer and returned with the papers were not stamped as fyled. All of the above should have been stamped as fylings, and I accordingly required the officer so stamp them.

Some of the officers contended that fees earned as Clerk of the Assizes were payable in cash. This is not the case. All fees, excepting those specially provided for, must be paid in stamps, no matter in what capacity the officer acts.

In one or two cases I found that an action and judgment entered in procedure and judgment books respectively had not been numbered. All actions are required to be numbered by the year, commencing with Number 1 every year in Process, Procedure and Judgment books. I also found that in one office the date of the fyling was not put on the papers received, and that the assize books were not fully entered. I have in course of preparation an assize book which is arranged so as to permit all that is necessary relating to proceedings at the assizes being set out fully and in detail.

Occasionally I have met with judgments drawn up on a half sheet of foolscap paper. This should never be accepted by the officer. All judgments should be neatly engrossed on a whole sheet.

Several of the officers have frequently allowed fees to solicitors for serving writs, contending that it was a saving of expense, and the sums as such were authorized by Torrance *v.* Torrance, 9 Practice Reports, 271. This decision does not go as far as contended, nor does it purport to overrule Section 335, Chap. 50, R.S.O., and should not be strained to interfere with the duties and emoluments of those officers who are expressly appointed for the purpose of serving process, etc.

Deputy Registrars have occasionally charged $1 per hour for taxing costs, instead of $1 for the whole taxation. I regret to state that I found in two or three cases that the officers had not paid over promptly the jury fees received by them. I also ascertained that several of these officers charged for marking exhibits and swearing witnesses at trial. The officers are not entitled to either of these items. In one case I found that the County Court Clerk had omitted indexing chattel mortgages and bills of sale fyled with him under the name of the mortgagee or bargainee. I required this to be done. Also one or two Clerks continued allowing from $2 to $5 for the costs of issuing a transcript under Division Court judgments. No Clerk has any authority to allow any sum whatever. In an action on a promissory note for $132, interest $2.48, total $134.48, the Clerk taxed and allowed $15.68 costs on the County Court scale notwithstanding the action should have been brought in the Division Court.

In one or two cases I found that the Clerks of the County Court had not entered their judgments in full, but merely contented themselves with docketing them in accordance with the old practice. I directed them to enter all these judgments in full, and

Appendices D

Contain statistical returns of business transacted by these officers during the past year.

Surrogate Registrars.

Early in the year the judges of the Supreme Court of Judicature passed a new tariff of fees payable to these officers; it appears in Appendix E. I immediately prepared forms in accordance with the tariff for the benefit of these officers.

In several cases I found that neither probates nor letters of administration were numbered in the register, and that the officers had not compared the copies of the wills entered in the register.

The charges collected by these officers have been according to the tariff with one or two exceptions. I found that in one case a Registrar having drawn up all the papers himself and charged for them, drew up three renunciations of probate, charging $3 therefor, although they were all signed at the same place and time by three brothers in favour of a fourth brother. One renunciation was all that was necessary and all that should have been charged for.

I found that several of the Registrars had not collected as large sums for the Judge's fees after the Judges commutation of their fees as they had previous thereto.

The Registrar should charge in every case: Order for grant, 50 cents; order approving bond, 50 cents; attendance, $1; order for inventory where one directed to be filed, 50 cents.

Appendix F contains a statistical return of the business transacted by these officers during the year.

County Attorneys and Clerks of the Peace.

There is still room for improvement in the return of convictions made by Justices of the Peace to Clerks of the Peace. All returns should set out fully the names of the parties, nature of conviction, amount of fine and imprisonment, the actual date of the receipt of the fines and to whom paid over by the Justice, and when and if to municipality the name of same, not merely the name of Treasurer or Clerk; if not paid, the reason why; if imprisoned, the term. They also should set out the amounts of fines paid since former returns were made.

A number of County Attorneys have neglected to make a return in accordance with the Order-in-Council approved by His Honour the Lieutenant-Governor, and dated 9th October, 1885, which amongst other things directs that "it shall be the duty of the County Attorney of each county to supervise the collection of fines, penalties and forfeited recognizances to which the Province is entitled, and that he be authorized to receive on behalf of the Treasurer of Ontario, from Sheriffs, Justices of the Peace and others, all moneys to which the Province is entitled for fines, penalties and forfeited recognizances, and in case the sum received amounts to Fifty Dollars, that he be required to pay over to the Treasurer of Ontario, every such sum forthwith on the receipt thereof, whether or not any additional sum is to be received in the same matter; and in case the sum received is under Fifty Dollars, then that he be required to pay the same over as aforesaid, as soon as he has received sums amounting to Fifty Dollars, and at any rate on the first day of January, April, July or October next succeeding the receipt of any sum. Proper particulars to be given with each sum paid or remitted.

"That each County Attorney be further required to report annually, on or before the 15th day of January, particulars of all moneys received by him during the year ending

on the preceding 31st day of December, or in case no such money has been received during such year then to report such fact to the Provincial Treasurer, a duplicate report to be sent in each case to the Inspector of Legal Offices."

No book having been kept in which the amount of fines and forfeitures received by these officers is entered, I have one now in course of preparation, and also other books, which I hope will assist them in carrying on the work of their offices, and facilitate a ready and thorough inspection.

Having received several communications as to whether the tariff of fees to be allowed to County Attorneys and adopted by the Judges of the Supreme Court of Judicature for Ontario on the 5th January, 1887, in respect of proceedings in the Court of General Sessions of the Peace was applicable to similar services in the County Judges' Criminal Court, I replied to same by referring the writers to Section 15, Chap. 18, R.S.O., 1877, which is as follows: "For services in the County Judges' Criminal Court, the County Crown Attorney shall be entitled to the same fees as for like services at the Court of General Sessions of the Peace."

I append a schedule containing the tariff of fees and costs to be allowed in respect of proceedings in the Court of General Sessions of the Peace to Clerks of the Peace and County Attorneys respectively, as framed by the Board of County Judges, under Sec. 25 of the Administration Act, 1885, and submitted by them to the Judges of the Supreme Court and approved of and adopted by them, under Secs. 54 and 55 of the Ontario Judicature Act, 1881, on the 5th January, 1887. (Appendix "G.")

I have also appended a schedule containing a return of all the fees and emoluments earned and received and the disbursements made by the above-named officials for the past year. (Appendix H.)

I have the honour to be, Sir,
Your most obedient servant,

JNO. WINCHESTER,
Inspector.

Osgoode Hall,
Toronto, March, 1888.

1st Decem

OF R... ED.	RECEIVED S, PEN- ETC.	AMO... UND... Ca...	Net Amount of Income.	REMARKS.
Again... nds.				
J. C	G. S., etc.	H. C.		
	$ c.	$	$ c.	
	.....	.....	1977 75	
	.....	.....	2005 32	
	10 00	.....	3154 90	
	40 00	.....	3210 90	
	.....	.....	1635 85	
	.....	280	2834 98	
	.....	.....	2667 28	
	5 00	.....	1714 55	
	.....	.....	2182 02	
	5 00	.....	1604 39	
	.....	.....	990 30	
	.....	.....	2791 86	
	.....	.....	2222 49	

Appendix A.—Containing in Tabulated Form Statistics as Returned by the different Sheriffs

NAME AND POST OFFICE.	Number of Services of Writs of—						Miscellaneous Process Served.		Total Number of Services.	Number of Estreats Received.		Number of Writs of Execution Received.				Number of Writs of Renewal Received.				Number of Sales under Writs of Execution.				Number of Cases Entered under the Creditors' Relief Act.		Number of Certificates received under this Act.	Assignments to Sheriffs under 48 Vic., Cap. 26 (Ont).	Amount Endorsed on Writs of Execution against Goods (not Renewals).				Amount Re- W
	Summons.		Subpœna.		*Ca Re* and *Ca Sa.*							(1) Against goods.		(2) Against lands.		(1) Against goods.		(2) Against lands.		(1) Against goods.		(2) Against lands.						(1) For Debt or Damages.		(2) For Solicitors' Costs Taxed.		(1 Against
	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.		H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.	C. C.			H. C. J.	C. C.	H. C. J.	C. C.	H. C. J.
																												$ c.	$ c.	$ c.	$ c.	$ c.
Algoma	11	12	4	6	.....	.....	3	10	46	.....	.....	11	19	7	12	6	28	7	29	1	1	.....	.....	1	....	3	.....	6392 27	3171 13	562 87	604 27	528 98
Brant	38	114	4	5	1	.....	8	4	174	.....	.....	38	34	22	29	5	10	10	22	2	4	1	.....	1	.....	2	3	24136 65	6778 71	2970 89	645 53	814 19
Bruce	55	41	23	23	1	4	25	14	186	.....	2	29	64	18	51	5	14	22	57	3	2	.. ....	1	.....	9	7	7	33828 84½	13382 59	2002 72	940 81	3994 38
Carleton	146	82	48	22	1	1	56	15	371	.....	1	65	77	44	54	44	22	45	30	1	3	1	.....	1	1	.....	9	216044 84	14023 40	4653 50	1744 52	120 00
Dufferin	34	27	3	2	.....	.....	13	3	82	.....	.....	15	40	9	39	3	15	13	35	.....	.....	1	.....	1	.....	.....	3	8825 56	6534 23	638 91	866 71	... .
Elgin	60	50	7	282	1	1	26	14	441	1	3	42	96	30	86	12	14	19	26	2	4	.....	3	.....	6	8	4	667992 77	15840 88	2493 65	2068 47	199 20
Essex	40	46	.....	.....	1	3	7	7	104	....	. .....	48	93	31	81	5	10	8	33	3	1	1	5	3	4	8	.....	95024 63	15555 19	2973 50	1693 44	2336 68
Frontenac	40	22	4	.....	.....	.....	12	.....	78	.....	.....	23	35	20	33	17	21	15	19	2	.....	.....	.....	.....	4	.....	.....	19660 39	6571 53	938 51	746 79	621 08
Grey	50	38	7	13	.....	2	15	. ... ..	125	.....	.....	42	70	26	67	4	20	28	69	9	5	.....	.....	5	36	21	.....	28545 21	11797 47	3904 94	1009 78	280 12
Haldimand	18	16	89	107	.....	2	12	3	247	.....	.... ..	8	26	6	16	.....	.....	.....	....	.....	3	.....	.....	.....	1	.....	2	6149 43	4260 68	162 81	439 22	.....
Halton	23	10	3	.....	.....	4	2	.....	42	.....	....	14	29	6	21	8	9	12	12	.....	1	.....	.....	.....	1	1	3	20102 66	4477 39	503 83	540 43	.....
Hastings	47	34	17	26	.....	4	23	2	153	1	.....	46	71	27	58	54	48	63	64	4	3	.....	2	4	3	4	1	50490 33	14396 50	3707 81	1300 22	2251 78
Huron	60	35	16	35	1	3	15	14	179	....	.....	49	93	31	84	14	27	29	68	2	2	.....	1	2	2	1	9	25640 02	14152 98	818 31	1354 81	139 96
Kent	57	47	25	19	3	2	44	20	217	.....	1	58	74	48	68	31	42	39	62	14	14	2	1	1	2	.. ..	4	132465 48	12411 36	2861 31	1015 77	4174 06
Lambton	52	43	14	29	3	3	22	6	172	.....	1	73	84	43	69	31	59	49	106	2	2	1	7	2	.....	.....	9	93204 02	4644 03	13835 27	1807 58	....
Lanark	32	12	....	3	1	.....	2	4	54	....	.....	8	29	6	21	3	6	3	7	1	2	.....	.....	1	4	2	4	3031 85	3749 73	428 78	419 98	324 08
Leeds and Grenville	58	54	7	15	2	.....	20	4	170	.....	....	31	45	18	28	3	15	5	24	5	2	1	2	5	3	13	11	56885 85	7685 24	880 09	2709 96	1401 68
Lennox and Addington	42	22	9	....	.....	2	21	1	97	.....	.....	29	43	21	38	11	19	15	26	4	4	1	2	.....	.....	9	7	37608 64	8587 41	1118 34	600 51	1280 85
Lincoln	55	39	23	18	.....	.....	36	1	172	.....	....	33	45	26	33	14	12	18	8	5	1	.....	.....	4	.....	6	3	109415 56	7470 65	2451 46	755 57	1550 99
Middlesex	99	68	37	82	6	3	15	22	332	.....	4	106	143	87	114	33	32	38	47	7	.....	1	1	8	2	32	7	233850 80	32042 89	4590 94	1927 23	7682 22
Norfolk	29	20	44	97	1	.. ..	7	3	201	.....	.....	18	53	10	44	8	8	10	14	3	1	1	.....	4	5	8	1	52001 02	7789 10	1656 87	1221 54	266 82
Northumberland and Durham	81	60	29	26	.....	1	46	5	248	.....	.....	57	151	38	102	39	43	53	62	2	16	1	5	.....	8	6	3	61066 22	29501 22	4158 19	2207 26	350 13
Ontario	42	26	11	21	4	.....	11	5	120	.....	.....	42	59	35	50	4	3	35	35	4	4	2	2	6	6	4	2	50672 36	11121 58	3507 62	803 89	1142 75
Oxford	51	47	8	.....	.....	3	16	10	135	... .	.....	56	82	41	80	7	10	9	11	2	7	.....	.....	1	5	9	10	61722 09	14372 69	3318 56	1725 25	634 74
Peel	29	23	6	8	.....	.....	9	2	77	.....	.....	21	24	13	18	14	6	26	11	1	.....	.....	1	.....	.....	1	3	33792 67	4647 41	628 05	388 43	300 10
Perth	49	29	19	12	2	.....	29	5	145	.....	....	28	46	19	38	10	15	13	27	1	3	.....	.....	1	3	.....	9	72387 01	7216 44	3876 91	994 46	25 00
Peterborough	35	26	9	1	.....	.....	8	5	84	.....	.....	11	39	10	35	8	6	6	9	.....	.....	.....	.....	.....	....	.....	2	7573 73	1087 94	344 37	120 78	.. ..
Prescott and Russell	19	15	2	5	.....	....	2	.....	43	.....	.....	16	13	11	13	4	17	4	21	.....	1	.....	1	.....	2	.....	4	7163 47	2418 34	397 97	231 78	.....
Prince Edward	30	25	9	1	.....	.....	9	9	83	.....	.....	22	29	15	21	12	13	8	11	3	.....	1	.....	.....	3	19	2	19342 30	4186 04	831 50	465 86	1772 54
Rainy River	1	9	.....	.....	....	. .....	.....	2	12	....	.....	5	12	7	6	4	6	7	5	1	1	.....	.....	1	1	.....	.....	2376 16	3415 85	413 68	225 98	197 85
Renfrew	27	35	18	22	1	1	5	.....	109	.....	.....	16	42	13	31	5	3	4	4	4	1	2	1	1	1	1	5	183266 15	7801 59	886 60	783 27	392 29
Simcoe	91	75	11	32	3	.....	24	16	252	.....	1	117	134	76	140	49	38	53	78	2	9	2	6	12	3	24	3	76539 28	23727 45	3766 86	1419 65	297 50
Stormont, Dundas and Glengarry	48	38	4	.....	.....	.....	5	4	99	.....	.....	56	92	47	131	16	22	20	25	2	1	2	6	.....	13	14	6	24991 94	13940 53	2227 21	1196 85	613 43
Toronto	214	164	88	14	5	1	62	21	569	2	.....	181	157	122	112	.....	... .	.....	.....	5	1	.....	.....	5	1	2	.....	239111 50	34841 54	9991 71	3200 55	1090 46
Thunder Bay	12	35	2	4	1	1	3	7	65	.... ..	.....	5	45	7	33	4	12	18	22	.....	4	.....	.....	. .....	7	1	1	10036 84	12395 10	196 99	1491 43	.....
Victoria	40	20	2	2	.....	1	27	5	97	.....	.....	21	37	13	25	13	32	21	47	3	.....	.....	2	.....	.....	.....	1	21942 41	4803 58	2412 29	865 81	647 79
Waterloo	51	41	3	2	.....	.....	5	14	116	.....	.....	25	55	25	44	2	2	5	8	2	5	.....	2	.....	8	16	6	17903 78	15105 93	1065 07	920 45	120 95
Welland	33	19	17	14	.....	1	14	8	106	.....	.....	29	24	15	21	11	12	14	15	3	4	.....	.....	2	.....	2	4	33146 56	4626 15	2099 10	606 73	1358 98
Wellington	13	16	.....	34	.....	.....	1	1	65	.....	.....	11	19	5	13	2	3	3	5	1	2	1	.....	1	2	6	.....	7748 75	4873 02	413 58	378 69	....
Wentworth	93	59	8	6	.....	.....	15	10	191	... .	... . ..	74	80	44	54	39	32	46	29	3	4	3	... ..	5	6	18	2	51103 54	16547 75	3488 81	1914 05	3324 81
York	145	121	25	83	1	5	45	17	442	1	3	160	177	126	163	55	33	223	176	12	2	2	.....	12	2	40	1	184123 39	8854 44	33861 84	8219 79	10073 32
Totals	2150	1715	655	1071	39	48	720	303	6701	5	16	1739	2580	1220	2176	609	759	1016	1359	121	120	27	51	90	151	268	151	3167077 97½	440707 90	131842 22	46573 89	50649 11

tatistics as Returned by the different Sheriffs for the year ending 31st December, 1887.

ER OF ENTER- ER THE TIONS' ACT. C. C.	Number of Certificates received under this Act.	Assignments to Sheriffs under 48 Vic., Cap. 26 (Ont).	Amount Endorsed on Writs of Execution against Goods (not Renewals). (1) For Debt or Damages. H. C. J.	(1) For Debt or Damages. C. C.	(2) For Solicitors' Costs Taxed. H. C. J.	(2) For Solicitors' Costs Taxed. C. C.	Amount Realized by Actual Sales under Writs of Execution. (1) Against goods. H. C. J.	(1) Against goods. C. C.	(2) Against lands. H. C. J.	(2) Against lands. C. C.	Amount Received for Fines, Penalties, etc. H. C. J.	Amount Received for Fines, Penalties, etc. G. S., etc.	Amount Received under Writs of *Ca Re* and *Ca Sa*. H. C. J.	Amount Received under Writs of *Ca Re* and *Ca Sa*. C. C.	Amount Realized under Writs of Execution Without Actual Sale. H. C. J.	Amount Realized under Writs of Execution Without Actual Sale. C. C.	Amount of Fees earned for the Administration of Justice payable by the Province.	Amount of Fees so earned payable by the County.	Amount of Fees otherwise earned.	Amount paid by the Province as salary.	Total amount of Fees earned.	Total amount of Disbursements.	Net Amount of Income.	Remarks.
			$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
....	3	.....	6392 27	3171 13	562 87	604 27	528 98	... .	.....	.....	.....	.....	.....	.....	414 96	167 50	783 96	.....	9941 07	1400 00	3178 03	1200 28	1977 75	
.....	2	3	24136 65	6778 71	2070 89	645 53	814 19	....	325 00	.....	.....	.....	.....	.....	.....	.....	1545 99	480 96	841 62	. ...	2868 57	863 25	2005 32	
9	7	7	33828 84½	13382 59	2002 72	940 81	3994 38	1310 58	.....	33 00	.....	10 00	.....	.....	1263 78	534 44	1167 61	572 82	2071 06	.....	4411 49	1256 59	3154 90	
1	.....	9	216044 84	14023 40	4658 50	1744 52	120 00	490 80	950 00	.....	.....	40 00	.....	.....	3144 90	2109 63	1612 90	431 03	4261 97	.....	6305 90	3095 00	3210 90	
.....	.....	3	8825 56	6534 23	638 91	866 71	... .	.....	57 42	.....	.....	.....	.....	.....	445 88	2933 54	500 96	368 45	1562 99	....	2432 43	796 58	1635 85	
6	8	4	667992 77	15840 88	2493 65	2068 47	199 20	515 45	.....	1109 73	.....	.....	280 65	.....	.....	.....	1552 64	390 67	2589 12	.....	4532 43	1697 45	2834 98	
4	8	.....	95024 63	15555 19	2973 50	1693 44	2336 08	33 60	125 00	970 47	.....	.....	.....	.....	.....	.....	1249 13	465 50	2701 00	....	4415 63	1748 35	2667 28	
4	.....	.....	19660 39	6671 53	938 51	746 79	621 08	166 08	.....	.....	.....	5 00	.....	.....	.....	.....	748 49	532 38	901 19	100 00	2202 06	487 51	1714 55	
36	21	.....	28545 21	11797 47	3904 94	1009 78	280 12	1323 30	.....	.....	.....	.....	.....	.....	1360 83	4148 30	593 40	981 57	2587 42	.....	4162 39	1980 37	2182 02	
1	.....	2	6149 43	4260 68	162 81	439 22	.....	375 00	.....	.....	.....	5 00	.....	.....	.....	.....	925 76	365 10	828 23	100 00	2119 09	515 70	1604 39	
1	1	3	20102 66	4477 39	503 83	540 43	.....	159 50	.....	.....	.....	.....	.....	.....	625 25	798 45	685 49	386 47	413 84	.....	1485 80	495 50	990 30	
3	4	1	50490 33	14396 50	3707 81	1300 22	2251 78	68 20	.....	127 00	.....	.....	.....	.....	.....	.....	1126 70	597 16	2788 30	.....	4512 16	1729 30	2791 86	
2	1	9	25640 02	14152 98	818 31	1354 81	139 96	167 73	.....	90 00	.....	.....	.....	.....	.....	4887 40	544 50	341 57	3431 67	....	4317 74	2089 32	2228 42	
2	.. ..	4	132465 48	12411 36	2861 31	1015 77	4174 06	2924 07	1050 00	130 00	.....	.....	35 23	11 59	.. ..	.....	812 91	664 21	2746 26	.....	4223 38	2043 28	2180 10	
.....	.....	9	93204 02	4644 03	13835 27	1807 58	....	113 88	....	174 63	.....	.....	....	.....	2750 96	2703 89	922 65	425 51	1820 17	.....	3168 33	1144 61	2023 72	
4	2	4	3031 85	8749 73	428 78	419 98	324 08	.....	.....	.....	.....	.....	.....	.....	.....	.....	562 12	451 20	498 42	.....	1511 74	443 98	1067 76	
3	13	11	56885 85	7685 24	880 09	2709 96	1401 68	483 51	500 00	405 00	.....	.....	.....	.....	.....	4293 24	643 76	617 36	2173 76	.....	3434 88	1198 04	2236 84	
.....	9	7	37608 64	8587 41	1118 34	600 51	1280 85	835 77	640 00	55 00	.....	.....	....	....	432 42	573 16	581 77	364 05	1667 32	.....	2613 14	1356 94	1256 20	
.....	6	3	109415 56	7470 65	2451 46	755 57	1550 99	171 62	.....	.....	....	.....	.....	.....	.....	.....	739 00	595 53	1472 06	.....	2806 59	1234 84	1571 75	
2	32	7	233850 80	32042 89	4590 94	1927 23	7682 22	....	375 00	46 40	.....	.....	....	.....	.....	.....	2176 60	988 69	2544 21	....	5709 50	3107 00	2602 00	
5	8	1	52001 02	7789 10	1656 87	1221 54	266 82	99 00	34 00	.....	.....	.....	.....	.....	.....	6581 99	924 02	586 85	1299 63	.. ..	2706 13	1137 05	1569 08	
8	6	3	61066 22	29501 22	4158 19	2207 26	350 13	2508 71	466 05	404 32	.....	.....	.....	.....	598 29	2058 05	990 15	718 16	3920 71	.....	5629 02	1867 58	3761 44	
6	4	2	50672 36	11121 58	3507 62	803 89	1142 75	316 00	953 00	175 00	.....	100 00	18 96	23 26	825 91	1237 69	954 15	579 06	1690 24	.....	3223 45	1781 25	1442 20	
5	9	10	61722 09	14372 69	3318 56	1725 25	634 74	1871 14	....	.....	.....	.....	.....	.....	993 36	2468 63	721 50	402 60	1964 51	.....	3088 51	1119 50	1969 11	
.....	1	3	33792 67	4647 41	628 05	388 43	300 10	.....	30 00	.....	.....	115 60	.....	.....	2367 84	1969 80	707 70	366 63	1122 17	.....	2271 09	1015 15	1255 94	
3	.....	9	72387 01	7216 44	3876 91	994 46	25 00	206 54	.....	.....	.....	.....	.....	.....	1559 89	1720 76	37 50	1400 67	1732 07	.....	3170 24	1346 82	1823 42	
.....	.....	2	7573 73	1087 94	344 37	120 78	.....	.....	.....	.....	.....	.....	.....	.....	.....	2378 49	705 42	442 10	814 36	.....	1961 88	451 15	1510 73	
2	.....	4	7163 47	2418 34	397 97	231 78	.....	47 95	....	237 72	.....	....	.....	.....	.....	30 00	322 61	333 91	815 99	375 00	1847 51	295 21	1552 30	
3	19	2	19342 80	4186 04	831 50	465 86	1772 54	.....	110 00	.....	.....	.....	.....	.....	.....	.....	741 64	441 71	301 78	200 00	1885 13	1214 71	671 42	
1	.....	.....	2376 16	3415 85	413 68	225 98	197 85	28 25	.....	.....	....	.....	.....	.....	.....	.....	345 00	....	131 15	800 00	1276 15	285 50	950 65	
1	1	5	183266 15	7801 59	886 60	783 27	392 29	1369 32	269 95	14 29	.....	66 50	. .....	.....	.....	.....	845 54	475 33	1064 20	.....	2385 11	1152 56	1232 55	
3	24	3	76539 28	23727 45	3766 86	1419 65	297 50	2015 32	199 40	279 00	.....	21 00	.....	.....	3470 89	4428 76	1358 48	640 80	5113 27	.....	7112 55	4608 94	2503 61	
13	14	6	24991 94	13940 53	2227 21	1196 85	613 43	73 49	114 52	1542 82	.....	200 00	....	.....	....	86 64	846 60	704 55	2014 35	.....	3565 53	993 98	2571 55	
1	2	.....	239111 50	34841 54	9991 71	8200 55	1090 46	1321 76	.....	.....	25 00	.....	.....	.....	11587 39	2078 99	2597 35	318 28	5721 05	.....	8636 53	3773 54	4656 99	
7	1	1	10036 84	12395 10	196 99	1491 43	.....	495 42	....	.....	.....	.....	....	.....	11833 60	1275 77	644 54	. .....	1223 20	500 00	2367 74	571 96	1795 78	
.....	.....	1	21942 41	4803 58	2412 29	865 81	647 79	.....	....	136 73	25 00	.....	.....	.....	620 31	2148 65	804 85	715 69	1629 37	.....	3149 91	708 65	2441 26	
8	16	6	17903 78	15105 93	1065 07	920 45	120 95	999 86	50 00	1500 00	.....	1 00	.....	.....	.....	.....	1266 25	336 64	141 50	100 00	3379 16	1534 77	1844 39	
.....	2	4	33146 56	4626 15	2099 10	606 73	1558 98	327 85	.....	.....	.....	.....	.....	.....	1019 63	2193 65	815 40	269 63	1635 51	.....	2120 54	631 75	1588 79	
2	6	.....	7748 75	4873 02	413 58	378 69	....	491 95	400 00	.....	.....	.....	.....	.....	....	44 65	191 10	63 46	288 30	.....	547 86	86 19	461 67	
6	18	2	51103 54	16547 75	3488 81	1914 05	3324 81	1414 93	2781 93	... .	.....	.....	.....	.....	2835 97	687 53	2870 20	496 08	2556 55	.....	5922 83	2991 50	2931-33	
2	40	1	184123 39	8854 44	33861 84	3219 79	10073 32	1625 82	1108 50	.....	300 00	958 00	.....	.....	6895 35	3656 58	3989 54	614 26	7661 43	.....	12265 23	6831 34	5433 89	
151	268	151	3167077 97½	440707 90	131842 22	46573 89	50509 11	24452 40	10548 77	7431 11	350 00	1522 10	334 84	34 85	55047 41	57896 78	41156 08	19920 64	81736 02	3575 00	148803 38	62882 89	85904 99	

ince of Ontario, other ber, 1887.

FOR TAKING THE FOLLOWING ACCOUNTS, ETC.

Money received, paid, advanced or lent.	Goods sold and delivered.	Promissory notes, bills of exchange.	On bonds, life and fire policies.	Infants' estates.	Quieting Title matter.	MARKS.
.....	.....	.....	.....	.....	.....	..
.....	.....	.....	.....	.....	.....	..
.....	.....	.....	.....	.....	.....	..
1	1	.....	.....	.....	.....	...
.....	1	.....	.....	.....	.....	...

Appendix B.—Being a Return of Business transacted by Local Masters throughout the Province of Ontario, other than Toronto during the year ending 31st December, 1887.

Counties or Districts.	Number of Orders made for the following purposes:					Number of examiners taken as special examiners or otherwise before trial.	Number of Judgments or Orders brought into the Master's Office for taking the following Accounts, etc.:																				Number of advertisements of sale issued.	Number of reports issued.	Number of references pending at date of return.	Number of bills of costs taxed by Master.	Amount realized by sales held under the direction of Master.	Amount of costs of references, etc., taxed by Master or under his direction.	Amount of commission allowed in administration and partition matters.	Amount of fees earned by Local Masters.	Remarks.
	(1) For the administration of estates.	(2) For the partition or sale of property.	(3) Relative to infants under R.S.O. cap. 44, s. 76 (Examination only).	(4) Under the Winding-up Acts.	(5) Other orders made in Chambers.		Administration of estates.	Executors, trustees or committees accounts and composition.	Foreclosure of mortgage or bond.	Redemption of mortgage or bond.	Sale under mortgage or agreement.	Account on any charge or lien other than under Mechanics' Lien Act.	Account under Mechanics' Lien Act.	Specific performance.	Partnership accounts.	Alimony.	Partition or sale.	Damages for breach of contract or covenant.	Work and labor done.	Money received, paid, advanced or lent.	Goods sold and delivered.	Promissory notes, bills of exchange.	On bonds, life and fire policies.	Infants' estates.	Quieting Title matter.	Lunacy.	Miscellaneous.									
																															$ c.	$ c.	$ c.	$ c.	
Algoma																																		
Brant					4	3		1		1						1											5	12	3	74	4380 00	937 24	1731 00	326 50	
Bruce	2	1			7	4	2		1		1	2				3											6	16	7	15	14145 00	2973 22	1632 91	579 00	
Carleton		1			47	26	2	1	5		1	3	1		1	3		3	1	1							7	34	17	25	68630 00	4114 06	1482 50	2593 83	
Dufferin			3			1			1											1									1		73 01		69 40	
Elgin	1	4			10	13		1	1		3					5		1						1	1		4	18	14	31	4800 00	2304 97	993 10	553 00	
Essex	5	3			7				1	1	2				1	2											3	15	3	29	17940 00	3032 35	843 07	656 90	
Frontenac		6			11	1			2	1	11				1	6											9	18	12	15	23195 00	955 56	417 60	658 46	
Grey					8	2			5						1				1				1				2	11	7	8	550 00	1127 29	102 50	445 83	
Haldimand		4				1																					5	3	1	3	20900 00	220 00	706 00	112 00	
Halton					3						3					1											4	6	2	2	7514 63	277 88	305 90	73 80	
Hastings	2	1			76	48	8	2	3	1	7				1				1					3		5	9	30	10	88	18500 00	6710 99	1680 75	2310 70	
Huron	2	2			32	10	4	1	1		4			1		5	1						2				9	13	11	14	18310 00	1101 58	1731 30	223 70	
Kent	1	7	1		6	20	1	1	2			1			1	7						1					9	21	3	24	6950 00	938 77	310 00	933 36	
Lambton		4				1																					4	8	5	5	11930 00		651 37	186 46	
Lanark		2	1								3					2		1						3		2	4	7	4	8	17746 81	942 03	476 00	204 43	
Leeds and Grenville	2	3			24	13	2	3			1							2					1					12	2	14		1319 17	461 50	275 78	
Lennox and Addington	1	1			4	7	5	2			6				1	3											10	17	6	16	2800 00	2670 41	394 60	521 10	
Lincoln	6	1			17	7			1	1						2											2	9	4	10	7100 00	1778 46	400 00	814 96	
Middlesex	6	7			38	4	1				1	2			1	3	1		2				5	3	1	2	10	26	10	18	20165 00	1487 50	1691 90	1672 26	
Norfolk					5	11					1																	1		1				252 35	
Northumberland and Durham																																		
Ontario	1	1			33	8	1	2	3	2	2	2				1		2					1				5	20	3	28	45265 00	3092 82	612 50	799 90	
Oxford	2	2					4		2	2						3		1									6	12	10	8	306 50	1644 34	684 20	519 33	
Peel	1				1	2	2		2		1																1	6	2	8	6200 00	287 53		145 15	
Perth	6	2			46		6		3		1	2				2											7	11	8	19	43350 00	2077 35	1281 09	535 15	
Peterborough		1			14	13	1			1	6					2				2							4	22	2	21	10107 63	2801 74	1362 25	719 85	
Prescott and Russell																																		
Prince Edward					32	8	1		3							1											2	4	3	4	2820 00	518 41		317 58	
Renfrew					3				1																1			1		1			18 60	
Simcoe	2	1			35	20	1	2	2		2					4							2					6	19	77	24205 00	248998 00	47146 00	743 50	
Stormont, Dundas and Glengarry		2			9		6	1	3		3				1			1						1			9	14	18	24	21895 00	2132 33	677 45	704 60	
Thunder Bay						1																						4		7			73 50	
Victoria	4				21		4					4				1							2				4	10	3	8	16668 00	929 38	989 17	297 50	
Waterloo	4		2	1	26	3	3				1																7	12	4	12	2250 63	1393 78	908 00	577 00	
Welland		1			4		1																				8	13		11	8725 00	1722 18	818 50	834 57	
Wellington	2	1			22	58	5		5	1	6					3									1		14	25	15	19	22000 00	2046 09	840 45	1212 95	
Wentworth				8	175	12	3	4	4		4					2		2	3	1			1		1	2	13	25	24	60	11073 37	2768 59	6665 43	1415 60	

uring

£500 and under.	Number days C sitting Judge Trials	
	Q. B. and C.P. Divs.	C D
1	2	..
14	11	
7	8	
29	40	...
11	6	
8	10	
...	10	
11	9	..
8	12	
1	4	...
5	4	...
22	10	...
6	10	...

Appendix C.—Being a Return of Business Transacted by Local Registrars, Deputy Registrars and Deputy Clerks

Counties or Districts.	Number of Writs Issued in the		Number of Writs Ca Re or Ca Sa Issued.		Total Amount Endorsed on such Writs.		Number of Actions Entered in Procedure Book.		Number of Examination of Parties.		Number of Lispendens Issued.		Number of Precipe Orders Issued.		Number of Orders Issued and Signed by Local Judge		Number of Actions Entered for Trial.				Number of Judgments Entered without Trial.		Total Amount of such Judgments without Costs.		Total Amount of Costs Taxed thereunder.		Total Amount of Disbursements allowed thereunder.		Number of Judgments entered after Trial	
																	(1) By Jury.		(2) Without Jury.											
	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C.P. Divs.	Chy. Div.	Q. B. and C.P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.
					$ c.	$ c.																	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.		
Algoma	12	5	.....	.....	9129 75	2274 85	7	4	.....	.....	2	1	1	.....	2	3	2	.....	1	.....	.....	1	.....	328 09	.....	142 47	.....	62 47	1	.....
Brant	60	30	1	.....	38411 43	24765 93	42	22	29	13	3	1	19	13	41	13	14	.....	7	8	21	9	24032 87	4031 41	747 40	359 53	258 55	85 59	7	1
Bruce	76	38	1	.....	24792 58	30810 81	52	24	10	5	11	70	8	4	27	15	5	3	2	1	18	8	13643 63	5648 01	488 04	249 61	161 57	60 98	4	1
Carleton	163	80	1	.....	444416 93	102797 36	127	77	41	.....	4	12	52	40	87	.....	25	1	11	25	27	27	137424 68	15791 48	1154 18	501 11	345 72	157 30	22	11
Dufferin	43	22	.....	.....	13132 33	8304 41	32	18	17	5	8	5	12	8	23	6	12	2	3	4	10	2	5472 60	.....	262 45	33 60	126 70	10 36	3	1
Elgin	70	36	2	1	113090 69	35622 55	49	29	20	20	6	2	12	6	14	10	11	9	3	8	18	7	8333 18	3983 75	438 43	152 04	119 40	56 70	11	7
Essex	63	32	.....	.....	46512 00	.....	54	37	24	.....	3	4	18	23	.....	9	14	6	10	18	13	15	6514 00	18706 75	228 00	171 61	71 84	50 99	3	5
Frontenac	120	58	1	.....	108421 99	.....	75	.....	17	.....	6	3	32	.....	41	.....	10	1	2	1	36	.....	28550 81	.....	699 52	.....	194 44	.....	5	.....
Grey	59	29	.....	.....	69987 24	16063 82	42	24	12	8	12	4	17	8	8	5	11	3	3	3	17	12	5765 80	5354 61	369 34	214 30	145 58	30 82	9	4
Haldimand	14	8	.....	.....	1656 75	455 00	12	6	3	2	1	2	1	.....	3	.....	3	.....	1	.....	2	1	733 58	405 82	56 29	38 89	17 97	8 69	.....	.....
Halton	14	6	.....	.....	4771 54	3537 78	12	9	.....	4	2	2	.....	.....	11	12	1	1	1	1	2	3	831 45	1721 55	42 85	71 64	26 25	25 34	2	.....
Hastings	152	76	.....	.....	121086 90	70694 14	126	.....	41	.....	18	.....	85	.....	61	.....	27	3	10	1	27	.....	21371 11	.....	724 12	.....	222 96	.....	16	.....
Huron	95	48	.....	.....	61631 70	26430 85	72	1	39	.....	6	.....	46	.....	65	.....	12	4	11	10	18	.....	1458 50	.....	969 85	.....	137 22	.....	8	.....
Kent	81	40	3	1	47242 09	39860 00	58	39	16	20	9	6	18	15	12	.....	12	.....	10	5	15	10	16454 38	16304 00	684 60	375 41	93 56	62 15	4	8
Lambton	67	33	1	1	28607 36	8441 18	48	27	.....	.....	10	16	14	10	12	4	6	9	5	5	12	8	10295 39	4297 82	540 83	363 26	180 37	74 87	2	.....
Lanark	71	36	.....	1	42808 15	17880 00	45	25	20	7	6	2	7	6	12	23	5	1	7	1	6	5	3351 40	7417 19	179 00	166 50	44 98	40 03	1	1
Leeds and Grenville	61	31	1	.....	79043 10	29975 60	53	.....	16	3	3	.....	8	.....	37	.....	5	2	10	11	14	.....	18807 31	5130 03	422 53	152 08	113 13	43 39	4	.....
Lennox and Addington	44	22	.....	.....	18464 43	20185 02	30	17	15	4	3	1	13	15	18	9	3	.....	4	1	22	13	6839 63	5094 15	721 58	194 17	236 72	53 12	2	.....
Lincoln	78	39	.....	.....	158947 29	159245 04	55	39	31	18	6	3	41	19	59	21	17	12	5	6	16	9	38837 95	19166 37	446 89	260 59	148 71	79 62	10	5
Middlesex	380	189	6	.....	423255 38	188693 11	268	147	46	.....	21	118	81	42	71	51	45	1	12	32	124	65	305712 09	144935 23	3248 98	1053 29	1072 88	583 48	22	15
Norfolk	35	18	.....	.....	14927 74	9079 92	24	15	6	6	2	1	9	10	2	.....	9	3	4	2	7	4	3381 53	4360 20	557 87	114 33	237 43	35 65	2	2
Northumberland and Durham	100	49	.....	.....	123244 87	45081 56	46	22	26	1	5	1	34	13	.....	.....	19	7	9	2	26	13	33475 06	21961 87	642 26	416 57	181 43	143 44	3	4
Ontario	73	37	1	.....	84609 25	21716 46	63	33	13	10	3	4	23	17	21	13	4	4	10	5	28	10	21731 87	12736 26	455 94	236 44	168 31	111 83	4	.....
Oxford	90	90	.....	.....	114309 23	99980 09	76	44	25	11	9	9	22	9	52	10	22	7	6	1	33	19	33951 68	11941 17	959 53	358 55	316 38	128 78	8	.....
Peel	17	8	.....	.....	7345 37	4037 33	10	5	.....	1	2	.....	.....	9	7	6	1	4	2	3	7	1	5911 24	733 70	197 05	23 23	65 99	7 13	.....	1
Perth	74	37	1	.....	42418 67	20563 13	54	30	23	14	5	4	31	13	39	24	10	10	11	11	18	7	21951 99	5229 50	511 60	205 45	140 50	89 36	8	7
Peterboro'	70	34	.....	.....	64170 60	33975 92	45	24	16	9	2	.....	24	11	34	1	9	2	5	9	10	9	4085 18	7064 79	153 44	130 08	53 34	41 45	3	2
Prescott and Russell	14	7	.....	.....	33507 47	3745 55	9	7	2	1	1	2	.....	.....	3	3	.....	.....	.....	1	7	1	1622 99	.....	250 66	.....	48 74	.....	.....	.....
Prince Edward	30	15	.....	.....	48285 54	12859 06	24	8	8	1	3	1	20	4	7	3	7	1	3	1	6	4	9727 32	2605 01	135 99	286 58	45 14	59 49	3	.....
Rainy River	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Renfrew	43	21	.....	.....	10895 48	7454 45	30	18	6	3	1	3	5	1	26	13	6	2	3	2	17	6	9950 43	1454 21	645 10	209 47	238 41	58 05	5	2
Simcoe	138	69	1	1	84640 53	41817 81	109	49	48	23	11	6	77	.....	.....	38	15	9	6	18	27	13	22470 60	23135 67	1137 34	454 92	.....	.....	20	3
Stormont, Dundas and Glengarry	131	66	.....	.....	94330 88	58832 49	59	33	.....	.....	1	1	40	31	11	6	12	5	8	10	47	27	26809 12	467008 92	1528 19	961 55	557 42	325 00	18	8
Thunder Bay	13	4	.....	1	12432 00	3686 00	13	6	3	1	5	.....	9	.....	5	5	.....	1	5	.....	1	1	818 86	.....	23 89	.....	8 79	.....	.....	.....
Victoria	34	17	.....	.....	42070 64	9046 87	20	11	6	4	3	3	12	7	.....	.....	5	21	2	2	6	2	8317 74	260 36	270 30	55 25	84 61	19 66	8	2
Waterloo	62	31	1	.....	41145 50	26771 88	37	21	7	1	3	2	6	1	7	2	2	.....	4	3	3	1	1000 00	.....	784 60	.....	316 79	.....	1	.....
Welland	28	14	.....	.....	17309 87	8730 81	25	16	12	13	3	.....	6	12	12	10	7	4	1	.....	6	2	3982 06	.....	64 80	26 20	39 59	7 45	3	4
Wellington	91	45	.....	.....	95839 17	21366 41	65	35	6	12	16	6	11	6	28	.....	5	6	5	9	12	7	12779 27	42227 25	404 12	134 31	89 82	44 21	2	10
Wentworth	286	142	1	.....	647506 12	.....	224	126	48	38	18	9	79	68	33	1	24	30	17	17	94	30	82258 84	19730 90	3220 87	970 08	962 12	22 49	.....	8

of the Crown throughout the Province of Ontario during the year ending 31st December, 1887.

OF TS D AL.	Total Amount of such Judgments without Costs.		Amount of Costs Taxed thereunder.		Amount of Disbursements allowed thereunder.		Number of Judgments for						Number of days of sitting of Judge at Trials.		Amount of Money paid into Court with Defence.		Amount of same paid out of Court.		Balance of Money remaining in Court.		Number of Writs of Execution issued against Goods.		Number of Writs of Execution against Lands.		Amount of salary paid Deputy Clerk of the Crown.	Amount of salary paid Local Registrar as Deputy Registrar in Chancery.	Amount of Fees Earned by Deputy-Clerks or Local Registrars.	Amount of Fees Earned by Deputy-Registrars.	Total Amount of Salaries Paid and Fees Earned by Deputy-Clerks and Deputy Registrars.
y. v.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C.P. Divs.	Chy. Div.	Over $10,000.	$10,000 and above $5,000.	$5,000 and above $2,000.	$2,000 and above $1,000.	$1,000 and above $500.	$500 and under.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.	Q. B. and C. P. Divs.	Chy. Div.					
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					1	1	2		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.	$ c.	$ c.	$ c.
			153 76		102 56						1	1	2													150 00	11 50		161 50
1	6510 36	291 00	1672 51	83 60	697 76	31 96		2	1	6	11	14	11	3							37	12	27		450 00	225 00	808 30		1583 30
1	200 00		861 93	121 76	587 61	65 60				7	9	7	8	1					8 15		8		11	7	450 00		155 10	133 10	738 20
1	6427 78	8100 78	3193 59	768 45	1761 91	311 44	2	6	8	6	20	29	40				600 00				41	36	32	29	450 00		523 20	607 54	580 74
1	856 75	189 58	180 40	112 00	168 85	130 36				1	4	11	6	5			168 29				9	3	7	2	450 00	225 00	233 00		907 00
7	1552 13	6005 78	1711 78	777 70	952 85	226 02		1	1	2	9	8	10	4							8	5	7	4	450 00	225 00	456 30		1131 36
5	2921 00	797 26	396 00	130 85	242 00	55 03	1	1	2	3	6		10	2							7	12	7	8	450 00		240 79	208 46	899 25
	702 39		1153 68		442 35			1		7	6	11	9								29		21		450 00		133 60	350 03	933 63
	29027 98	408 51	1840 03	250 72	709 80	56 43	1	1		3	6	8	12	2							17	11	11	5	500 00	250 00	139 50		889 50
											1	1	4								3		1		400 00	200 00	72 45		672 45
	322 00		515 72	91 12	191 39	37 92					2	5	4								2				400 00	200 00	23 50		623 50
	2645 84		1669 94		672 65				2	4	15	22	10								32		24		450 00		629 21		1079 21
	496 36		981 30		557 29				1		7	6	10								21		23		500 00		627 45	162 60	1289 85
	7433 54	2500 00	303 19	765 15	163 09	650 36		2	2	6	8	7	10	3							8	13	7	12	450 00		130 00	305 50	885 50
	674 35		314 20		137 31				2	1	11	8	14	2	336 64		336 64				13	6	8	6	450 00	225 00	216 82		891 82
	815 84	600 00	178 89	242 16	76 79	132 54			1	1	7	5	3		300 00		300 00				4	2	3	1	450 00	225 00	151 40		926 40
	15573 71	1211 17	391 81	522 12	136 03	307 04		2	1	4	7	11	7	3							13	6	4	2	500 00		216 60	126 10	842 70
	2529 00		242 65		122 05				1	5	9	2	6								13	5	12	4	500 00		285 70		785 70
	3023 92		1916 28	928 14	1185 42	278 60	2	1		3	15	13	5								12	8	9	7	450 00		281 30	358 53	1089 83
	6747 06	7647 23	3335 99	1399 91	1831 15	1279 11	3	4	14	30	72	71	23	5	745 00		700 00		45 00		131	58	117	56	500 00		714 60	834 20	2048 80
	72 00	668 60	415 35	315 94	201 33	291 70				3	3	6	8	3							4	6	2	4	450 00	225 00	357 25		1032 25
	629 54		521 67	1150 24	252 37	810 09		3	6	2	14	8	21	2							14	10	11	6	500 00	250 00	433 20		1183 20
	481 32		229 81		274 58				6	5	15	12	12	2							22	8	26	7	450 00	225 00	240 70		915 70
	1726 46		1125 95		510 33			1	3	5	16	12	11						9 50		27	16	20	5	450 00		367 85	163 56	981 41
7				216 54		123 00				2	3	1	3								5	2	3	1	400 00	200 00	53 25		653 25
	2813 78	7742 15	330 85	2199 85	44 70	1115 25	1			6	10	10	7	4							8	10	6	8	450 00	225 00	439 80		1116 80
2			229 69	160 52	138 87				1	2	5	3	6	4							4	6	3	4	450 00	225 00	264 70		939 70
											1	7	3								8	1	6		450 00	225 00	41 30		716 30
	26746 07		1014 26		649 42				3	2	6	2	7								13	8	5	3	400 00	200 00	223 00		823 00
2	140811 53		1753 89	668 17	1479 73	194 75			2	6	9	10	6								29	22	7	7	400 00	200 00	118 00		718 00
3	3865 63	759 84	3635 64	463 50		48 59	1		5	5	14	22	20	7							28	21	20	15	500 00		502 66	531 05	1534 71
3	2521 62	631 10	2574 85	1081 51	1132 21	466 72			3	11	17	67	22	3							51	26	44	19	500 00	250 00	1040 73		1790 73
											1		2								3	1	4	3	400 00	200 00	43 65		643 65
2	881 66	755 17	1220 38	337 67	795 22	67 20			1	2	2	6	7	2							6	1	4		450 00	225 00	151 00		826 00
	500 00		350 66		111 08				2	6	7	5	5								8	1	8	1	850 00	225 00	175 00		1250 00
4	301 00	2743 63	920 10	292 55	658 58	189 90				4	3	5	7		110 75	45 00	110 75	45 00			10	4	7	4	800 00	200 00	207 00		1207 00
0		62 50		840 23		626 48		1		2	9	5	11	4							16	8	9	6	500 00		65 10	318 63	883 73
3	83550 57	2483 00	2788 91	1876 64	1402 90	1014 63	2	1	8	17	51	45	26	10	199 00		199 00				118	35	59	23	500 00		316 36	320 00	1136 36

37.

Amount of fees earned by the Clerk of Court.	Remarks.
$ c.	
835 02	
1031 90	
1101 10	
1274 58	

Appendix D. —Being a Return of business transacted by County Court Clerks throughout the Province

Counties or Districts.	Number of Writs of Summons issued.	Number of Writs of *Ca. Re.* issued.	Total amount endorsed on Writs of Summons and *Ca. Re.*	Number of actions entered in Procedure Book.	Number of Examinations of Parties.	Number of Issues issued.	Number of precipe orders issued.	Number of orders issued and signed by Local Judge.	Number of Actions entered for Trial. (a) By Jury.	(b) Without Jury.	Number of Judgments entered without Trial.	(a) Total amount of such judgments without costs.	(b) Total amount of Costs taxed thereunder.	(c) Total amount of Disbursements allowed.	Number of Judgments entered after Trial.	(a) Total amount of such Judgments without costs.	(b) Total amount of Costs taxed thereunder.	(c) Total amount or Disbursements allowed.	Number of Transcripts of Judgments received from Division Courts.	Number of Judgments. $200 and over.	$200 and over $100.	$100 and under.	Number of days of sitting of Judge at trials.	Amount of money paid into Court with defence.	Amount paid out.	Balance in Court.	Number of Writs of Execution issued against Goods.	Number of Writs of Execution issued against Lands.	Number of Writs of *Ca. Sa.* issued.	Number of Ca. Sa. issued under
			$ c.									$ c.	$ c.	$ c.		$ c.	$ c.	$ c.						$ c.	$ c.	$ c.				
Algoma	22	....	4624 02	8	5	1	....	7	5	1	4	727 76	144 96	64 56	1	.....	184 02	108 96	.....	2	3	.....	11*	.....	.....	.....	4	3	...	
Brant	63	1	12386 61	67	26	....	11	48	9	4	26	7018 00	454 16	164 11	6	988 71	510 92	265 50	9	16	11	7	9	354 12	354 12	.....	50	56	....	
Bruce	80	2	38191 86	46	17	...	72	77	10	5	19	3775 77	350 54	117 28	9	217 95	972 09	463 07	24	11	6	3	11	535 74	536 74	.....	10	13	....	
Carleton	136	3	25471 07	101	14	26	....	53	14	15	56	11555 07	856 42	238 34	9	852 07	904 42	557 89	14	31	19	5	.....	.....	.....	.....	54	41	....	
Dufferin	34	....	5998 58	26	10	....	8	19	9	2	11	2777 09	145 80	64 10	2	224 10	77 55	146 55	17	10	1	2	6	.....	.....	.....	15	11	...	
Elgin	65	1	12521 10	53	7	1	20	25	3	1	34	6885 54	801 40	274 93	7	528 11	1500 80	630 76	43	20	14	3	4	48 59	48 59	....	.....	.....	2	
Essex	60	....	13757 39	.....	22	37	3	.....	5	7	28	5309 73	584 09	194 39	8	1429 51	824 49	482 76	32	14	11	2	.....	430 66	370 66	.....	47	40	1	
Frontenac	83	....	15771 40	59	13	....	15	49	8	3	30	6062 05	549 25	146 67	2	.....	171 50	111 98	14	16	18	6	.....	75 00	.....	87 75	77	64	....	
Grey	44	....	7712 54	27	4	1	8	4	5	1	17	3304 28	296 56	95 96	3	78 75	182 45	113 32	29	11	3	4	8	.....	.....	.....	40	39	1	
Haldimand	11	....	1599 07	8	2	....	....	5	1	.....	5	792 15	82 32	36 31	1	357 12	227 12	202 45	2	3	.....	2	2	254 44	254 44	.....	17	24	....	
Halton	14	....	3125 04	14	2	. .	12	14	2	.....	6	1768 05	110 19	39 74	2	258 84	125 45	122 43	1	6	2	.....	3	450 00	150 00	300 00	8	4	....	
Hastings	149	....	27443 98	97	27	....	28	38	7	20	52	9914 12	712 74	195 36	14	2477 38	789 86	418 47	21	36	21	9	13	.....	210 17	.....	58	48	....	
Huron	76	2	13185 35	59	17	...	26	43	10	6	24	5389 16	443 47	151 37	9	900 75	928 36	613 15	37	.....	.....	.....	9	219 77	219 77	.....	86	98	2	
Kent	74	4	12443 10	41	2	....	6	12	8	6	16	3011 72	292 42	111 70	6	1107 25	530 74	311 84	27	10	9	3	10	.....	.....	... .	38	25	....	
Lambton	54	1	8810 18	43	....	1	3	2	2	9	21	4455 98	487 05	165 07	7	803 39	410 01	101 41	22	....	15	.....	6	50 00	50 00	.....	20	15	1	
Lanark	48	...	6796 05	33	10	1	4	26	.....	5	17	2676 00	371 08	76 09	2	130 92	172 80	97 03	12	6	8	5	4	.....	.....	.....	29	43	....	
Leeds and Grenville	69	...	13324 77	49	7	....	5	30	3	7	27	5353 64	510 25	173 00	7	793 32	653 62	349 41	... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lennox and Addington	30	....	7129 02	25	3	...	3	9	1	.....	13	3347 34	225 47	83 79	1	223 65	185 23	112 85	16	14	.....	.....	3	20 00	20 00	.....	37	33	2	
Lincoln	58	....	11904 79	44	20	....	11	36	7	3	24	5709 06	424 52	164 03	7	707 98	716 65	386 19	7	.....	.....	.....	6	381 87	300 00	81 87	34	23	....	
Middlesex	555	3	120435 71	396	31	....	32	49	10	11	306	64471 19	4956 23	1886 95	15	2468 40	1431 20	660 35	50	186	102	18	19	78 24	78 24	.....	309	284	1	
Norfolk	32	....	3827 63	30	4	....	14	24	4	3	16	2183 70	190 51	55 16	5	782 84	537 83	207 79	21	3	14	4	3	.....	.....	.....	37	30	...	
Northumberland and Durham	92	1	19077 26	92	8	1	54	. .	6	4	31	7371 02	655 13	229 69	8	1634 97	769 85	646 25	41	22	11	5	1	.....	.....	.....	66	55	1	
Ontario	60	2	12069 91	48	11	....	14	.....	6	2	25	6163 61	315 27	172 05	2	294 50	28 70	47 92	15	2	7	.....	9	.....	.....	.....	42	37	....	
Oxford	80	2	18571 78	66	12	1	7	73	10	4	40	10615 47	742 69	226 68	4	615 38	470 90	207 99	20	39	5	.....	11	....	.....	.....	54	49	1	
Peel	27	....	5918 57	22	5	....	4	27	3	2	16	3560 27	284 78	90 82	2	280 00	169 37	99 40	10	13	3	1	6	50 00	50 00	.....	22	17	...	
Perth	69	1	13726 20	62	16	1	20	22	10	2	43	7907 26	554 17	191 62	6	689 08	461 43	244 92	13	.....	.....	.....	9	109 10	109 10	.....	32	28	....	
Peterboro'	38	....	6372 29	25	25	....	....	4	3	1	9	2077 91	138 09	41 84	9	714 97	1006 41	602 21	13	14	9	8	6	.....	.....	.....	27	19	....	
Prescott and Russell	25	....	4111 37	19	1	....	.. .	13	.....	.....	20	2962 47	572 32	201 95	2	.....	.....	160 36	11	.....	.....	.....	6	.....	.....	.....	21	20	....	
Prince Edward	86	....	7461 03	29	5	....	7	27	2	3	14	3105 36	228 77	72 32	2	109 41	198 01	84 47	9	10	5	.....	8	.....	.....	.....	25	18	....	
Rainy River	9	...	11823 50	.....	.....	....	7	5	4	4	2	439 30	40 82	13 02	.....	... .	....	.. ..	....	.....	.....	.....	4	.....	.....	.....	1	1	...	
Renfrew	69	....	15006 66	58	2	....	..	53	1	3	42	8381 66	1151 22	321 34	2	250 00	130 01	85 41	6	26	16	2	6	.....	.....	.....	29	22	....	
Simcoe	103	....	21077 22	80	26	1	34	.....	16	6	.....	7748 31	624 38	236 43	.....	2162 07	1885 00	1176 00	41	.....	.....	.....	14	.....	.....	.....	65	50	....	
Stormont, Dundas and Glengarry	182	....	32939 02	55	....	....	22	31	8	2	97	25568 06	2745 65	895 28	3	269 83	478 63	278 22	52	39	50	11	9	.....	.....	.....	110	126	....	
Thunder Bay	81	....	42810 00	64	9	3	11	33	7	2	26	11415 92	614 60	177 46	10	2408 00	983 27	477 14	6	20	12	2	9	.....	.....	.....	55	59	2	
Victoria	36	....	7546 74	36	7	....	17	.....	8	1	14	3476 37	253 93	79 50	5	339 00	431 05	251 21	13	16	7	1	5	.....	.....	.....	20	19	....	
Waterloo	65	....	14018 32	47	6	1	5	8	8	1	.....	.....	.....	.....	4	616 53	214 64	153 74	13	.....	4	.....	2	... .	.....	.....	22	22	1	
Welland	22	2	4491 10	18	2	....	7	25	5	1	4	802 52	56 75	18 27	1	212 43	36 30	15 43	5	4	.....	1	19	.....	....	..... .	16	15	....	
Wellington	101	2	22305 01	66	14	2	16	54	11	1	36	9177 24	1797 00	771 35	6	12779 27	404 36	135 74	32	32	9	1	13	569 71	575 65	138 81	29	32	2	
Wentworth	270	2	55923 29	202	48	....	50	97	25	10	133	30369 16	3155 18	537 03	10	1243 75	766 70	412 30	43	89	44	11	19	372 00	372 00	.....	171	109	....	
York	887	7	185803 12	625	53	22	134	296	73	45	397	87009 28	6776 78	2190 58	41	4330 47	3174 51	1256 91	88	266	126	46	93	549 24	1856 54	731 60	410	350	1	

Number of Writs of Execution issued against Goods.	Number of Writs of Execution issued against Lands.	Number of Writs of *Fa. Sa.* issued.	Number of Certificates issued under Creditors' Relief Act.	Amount for which issued, without Costs.	Amount of Costs allowed thereunder.	Number of Partition Matters.	Amount of money paid thereunder.	Amount paid out.	Amount at the joint credit of Judge and Clerk, including interest allowed.	Number of Chattel Mortgages and Bills of Sale filed.	Total amount secured by such Mortgages.	Number of Mortgages renewed.	Number of Discharges filed.	Number of assignments filed under 48 Vict., chapter 26 (Ont.)	Amount of fees earned by the Clerk of Court.	Remarks.
				$ c.	$ c.		$ c.	$ c.	$ c.		$ c.				$ c.	
4	3	...	3	101 38	7 65	.....	.....	.....	.....	99	39416 75	13	1	.....	835 02	
50	56	....	2	201 68	10 62	3	11791 69	9994 81	1796 88	360	187548 84	135	9	....	1031 90	
10	13	....	4	2045 04	47 15	25	11715 77	6545 58	11908 67	648	160165 00	145	12	....	1101 10	
54	41	.....	.....	.....	.....	.....	.....	.....	.....	410	204965 92	286	45	.....	1274 58	
15	11	...	....	.....	.....	.....	.....	.....	.....	161	41556 95	30	3	.....	356 65	
.....	.....	2	.....	.....	.....	1	.....	.....	.....	49	131576 85	85	28	.....	774 78	
47	40	1	1	208 11	8 80	1	800 00	800 00	.....	486	116723 38	54	6	....	600 00	
77	64	....	1	169 89	5 30	.....	.....	.....	267 46	369	268190 34	103	10	...	597 40	
46	39	1	15	1948 73	108 34	.....	.....	.....	.....	1091	260156 51	231	.....	...	795 75	
17	24	.....	.....	.....	.....	1	470 92	470 92	.....	148	48175 81	36	2	.....	234 76	
8	4	.....	.....	.....	.....	.....	.....	582 05	2525 27	112	27248 53	57	2	.....	225 95	
58	48	....	2	189 49	7 95	.....	.....	4138 04	1225 55	941	276870 23	153	18	.....	1358 09	
86	98	2	1	299 32	11 80	.....	1079 74	2694 75	10729 55	339	126509 72	130	15	....	942 77	
38	25	.....	.....	.....	.....	.....	.....	.....	.....	684	200687 25	154	28	.....	654 00	
20	15	1	2	239 22	3 00	.....	.....	.....	.....	425	187980 48	95	16	.....	583 21	
29	43	.....	.....	.....	.....	.....	.....	.....	.....	201	254199 26	40	9	.....	381 10	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
37	33	2	1	.....	41 08	.....	.....	.....	.....	204	65613 31	75	11	.....	389 90	
34	23	....	4	1775 14	32 40	....	.....	.....	.....	157	91065 41	68	9	.....	610 61	
309	284	1	19	3969 76	149 72	.....	.....	.....	.....	926	479089 27	196	16	.....	2310 25	
37	30	.....	.....	.....	.....	1	.....	.....	5150 00	217	46472 51	70	5	.....	537 00	
66	55	1	4	306 15	18 00	.....	.....	.....	.....	550	264983 31	213	13	.....	924 29	
42	37	....	2	5997 80	15 80	.....	.....	.....	.....	338	111058 01	117	6	.....	681 00	
54	49	1	4	1997 48	44 17	1	1700 00	1774 47	2956 98	268	91337 26	65	13	.....	935 70	
22	17	...	...	.....	.....	.....	.....	.....	275 68	164	83028 64	44	3	.....	313 52	
32	28	.....	.....	.....	.....	.....	.....	.....	.....	316	123851 05	25	6	.....	693 45	
27	19	....	1	238 27	14 55	.....	.....	.....	.....	370	104623 62	60	6	.....	461 35	
21	20	.....	.....	.....	.....	.....	.....	.....	.....	204	122299 87	15	2	...	266 25	
25	18	....	16	1584 95	93 25	.....	.....	.....	.....	274	62798 11	39	16	.....	407 00	
1	1	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64 09	
29	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	521 00	
65	50	....	13	774 64	41 58	.....	.....	.....	.....	660	221848 88	193	10	...	1279 05	
110	126	....	8	646 61	58 67	.....	.....	.....	.....	303	418012 34	43	5	.....	.....	
55	50	2	1	210 98	4 95	.....	.....	.....	.....	40	9269 00	15	4	.....	607 19	
20	19	.....	.....	.....	.....	1	162 24	162 24	.....	395	135242 34	139	9	.....	555 70	
22	22	1	10	3710 01	80 76	2	3365 33	2446 03	2580 18	121	50461 50	34	9	.....	311 55	
16	15	....	2	1196 01	39 65	.....	48 77	.....	1815 59	188	104626 60	55	10	.....	358 65	
29	32	2	8	3945 05	155 36	.....	229 23	20 73	5825 42	520	215836 38	104	11	.....	857 65	
171	109	....	19	3388 99	221 76	1	428 00	.....	428 00	487	172937 76	148	24	.....	1674 74	
410	350	1	29	18387 59	196 20	.....	.....	291 00	3928 36	1266	903013 48	322	96	.....	4356 25	

APPENDIX E.—Referred to in the foregoing Report.

I.—REGISTRARS' FEES—NON-CONTENTIOUS BUSINESS.

The following shall be the tariff of fees to be taken by Registrars of the Surrogate Court for duties and services in respect of non-contentious business in the said Court:

1. Receiving and entering application	$0 50
2. Forwarding notice of application to Surrogate Clerk	25
3. Receiving and entering certificate	25
4. Preparing every the necessary affidavits, including attendance	1 00
5. Every bond	1 00
6. Preparing instrument of renunciation with affidavit of execution	1 00
7. On every grant or letters of administration where the personal property devolving is under $1,200	1 00
From $1,200 to $4,000	1 75
From $4,000 to $8,000	2 50
From $8,000 to $25,000	5 00
Above $25,000	8 00
8. Submitting papers with Registrar's report thereon to Judge to lead grant	50
9. Recording will or letters of administration or of guardianship, per folio	10
10. For probate or administration or letters of guardianship issued under Seal of the Court, each instrument	75
11. Ditto—If grant is special	1 00
12. Transcript of will, per folio	10
13. Notice of grant to Surrogate Clerk	25
14. Certified copy of will in addition, per folio	10
15. Drawing special orders or other instruments directed by Judge, per folio	10
16. Taking every affidavit or administering oath to a witness	20
17. Attending and entering every order or minute	50
18. Every summons or order, and every citation or other process under seal, if prepared by Registrar, per folio, including fee for sealing	20
19. For search by a party in the Registrar's books or files	20
20. For looking up original will or instrument and inspection, or for general search into proceedings	30
21. Every necessary certificate granted by Registrar	50
22. Exemplification under seal	1 00
If exceeding 5 folios, per folio on the excess	10
23. For depositing every will of a living person for safe custody, including a deposit receipt	50
24. Issuing every subpœna	50
25. Writing every necessary letter	25
26. Filing every necessary paper	10

27. For taxing costs and granting certificate..... $0 50
28. Postages and stamps and all other necessary disbursements to be added in all cases.
(No fee allowed for filing papers in non-contentious business before probate or letters granted.)
29. Recording guardianship bond under R. S. O. ch. 132 25

On proof of will in solemn form and in proceedings for revoking probate or letters of administration or for the removal of a guardian:

1. If the proceedings are disputed or contentious the same fees may be charged by the Registrar as in contentious proceedings.
2. If the proceedings are undisputed the same charges may be made by him as in non-contentious proceedings.

II.—REGISTRARS' FEES—CONTENTIOUS BUSINESS.

1. Receiving, entering, and filing caveat, and transmitting notice thereof to Surrogate Clerk.... $0 75
2. Warning to caveat, and entering same 30
3. Receiving, entering and filing bond on appeal 25
4. Searching for, making up and transmitting papers on cause being removed to High Court of Justice..... 50
5. Every certificate for which no other fee is payable..... 50
6. On every citation..... 50
7. Search in Registrar's books or files..... 20
8. Looking up original will or instrument, and inspection, or for general search into proceedings. 30
9. Filing every necessary paper, except when filed as an exhibit at trial, examination, etc..... 10
10. Filing and entering every paper required to be entered..... 10
11. Entering every record or issue deposited for trial..... 50
12. Subpœna, *ad testificandum*..... 40
13. Subpœna, *duces tecum*..... 50
14. Administering oath or taking an affidavit..... 20
15. Entering decree, or order in pursuance of judgment, if under five folios..... 50
16. If over five folios, per folio..... 10
17. Entering every order or decree requiring to be entered in the Court book, not otherwise specified, per folio... 10
18. Summons to attend in Chambers..... 25
19. Issuing every Writ under Seal of the Court, except Subpœna..... 50
20. For every office copy or extract of a minute, order, decree, or other document filed or deposited in the office of the Registrar, per folio (including search) 10
21. For the seal in addition to the fee, for the copy, and collating if required..... 25
22. Every necessary letter..... 25
23. Taxing every bill of costs, and granting certificate..... 80

DISBURSEMENTS.

24. All outlays for postages and stamps as disbursed to be added in all cases.

WITNESSES.

25. In all cases witnesses fees and conduct money or mileage are to be allowed the same as are taxable in the County Court.

26. After contentious proceedings are closed and a decree for probate granted, or letters of administration have been decreed to either party, the Registrar, in addition to the foregoing fees, shall be entitled to receive the following fees on such grant, besides the appropriate fees set forth in items Nos. 1, 2, 3 and 4 of the tariff for non-contentious business, and the following, viz.:

Where the property devolving is under $1,200	$1 00
From $1,200 to $4,000	1 75
From $4,000 to $8,000	2 50
From $8,000 to $25,000	5 00
Above $25,000	8 00

On proof of Will in Solemn Form and in proceedings for revoking probate or letters of administration, or for the removal of a guardian:

1. If the proceedings are disputed or contentious the same fees may be charged by the Registrar as in contentious proceedings.
2. If the proceedings are undisputed the same fees may be charged by him as in non-contentious proceedings.

APPENDIX F.—Being a Return of business transacted by Surrogate Registrars

COUNTIES OR DISTRICTS.	Number of Probates issued	Number of Letters of Administration issued.	Number of Letters of Guardianship issued.	Number of Probates and Letters issued under Section 64, Cap. 46, R.S.O., and included in above.	Number of Wills proved Guardianship issued where			
					Above $100,000.	From $50,000 to $100,000.	From $25,000 to $50,000.	From $10,000 to $25,000.
Algoma	4	2	.....	.....	.....	.....	.....	.....
Brant	38	29	1	7	1	.....	1	3
Bruce	44	28	1	7	.....	.....	1	1
Carleton	76	41	6	6	1	1	1	7
Dufferin	21	8	1	10	.....	.....	.....	.....
Elgin	70	40	10	53	.....	.....	.....	1
Essex	40	15	3	.....	.....	1	1	3
Frontenac	30	28	4	2	.....	1	.....	8
Grey	67	34	4	4	.....	.....	.....	.....
Haldimand	37	19	2	.....	.....	.....	.....	.....
Halton	24	23	4	9	.....	.....	.....	2
Hastings	43	32	5	6	.....	.....	.....	.....
Huron	95	31	3	4	.....	1	.....	1
Kent	63	34	3	5	.....	.....	1	1
Lambton	52	24	2	4	.....	.....	.....	2
Lanark	26	14	.....	2	.....	.....	2	1
Leeds and Grenville	63	23	.....	2	1	.....	.....	6
Lennox and Addington	21	9	.....	.....	.....	.....	2	1
Lincoln	46	16	2	.....	.....	1	1	2
Middlesex	125	62	8	8	.....	.....	.....	7
Norfolk	37	15	1	10	.....	.....	.....	.....
Northumberland and Durham	86	49	3	4	.....	.....	1	7
Ontario	75	34	6	2	.....	.....	2	3
Oxford	71	27	18	3	.....	.....	.....	7
Peel	51	15	3	2	.....	.....	1	4
Perth	74	30	5	2	.....	2	.....	2

throughout the Province of Ontario during the year ending December, 1887.

and Letters of Administration or personalty valued as follows:					Total amount of realty to be administered.	Total amount of personalty devolving.	Amount of Fees collected by Surrogate Registrar for—			
From $5,000 to $10,000.	From $1,000 to $5,000.	From $500 to $1,000.	From $200 to $500.	$200 and under.			Registrar's Fees.	Judge's Fees.	Fee Fund.	Total.
					$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
.....	2	.....	3	1	250 00	9040 00	30 95	22 00	15 50	68 45
8	26	5	12	12	132448 00	453913 33	598 05	572 50	337 00	1507 55
.....	26	18	13	13	41670 00	104176 00	661 25	281 70	177 00	1119 95
6	39	30	24	14	.....	581724 65	961 45	775 00	....	1736 45
4	12	4	5	5	55081 00	59724 35	269 85	113 50	79 00	462 35
6	52	23	15	15	181053 00	180442 94	916 74	428 50	34 50	1379 74
3	13	16	7	11	....	201536 22	449 75	387 50	189 00	1026 25
.....	17	11	11	10	61900 00	240070 52	550 70	420 50	227 50	1198 70
5	36	30	21	13	110545 00	136631 20	784 95	323 00	240 00	1347 95
1	22	10	15	10	.....	61364 39	574 50	183 70	125 00	883 20
5	19	13	2	9	25800 00	127631 04	451 23	225 80	151 50	828 53
6	36	18	16	4	18684 60	121933 24	702 67	348 80	199 00	1250 47
11	54	34	18	10	53550 00	321268 85	1199 88	753 50	378 00	2331 38
2	31	18	18	16	47050 17	216683 72	517 15	448 00	259 50	1224 65
2	29	20	17	6	78247 80	519 00	578 37	322 50	231 00	1131 87
5	14	8	5	5	56125 00	176256 00	393 66	314 20	161 50	869 36
7	40	10	14	8	25700 00	411662 66	797 20	568 90	365 00	1731 10
.....	10	9	8	.....	.....	115909 31	311 10	97 50	169 60	578 20
3	28	10	12	7	5800 00	249349 54	537 48	397 00	287 50	1221 98
16	72	37	22	41	72550 00	444183 10	1501 30	910 30	554 50	2966 10
2	25	9	9	7	18720 87	75079 26	485 27	232 50	138 50	856 27
10	62	32	12	14	23820 07	370158 18	1059 60	589 00	431 50	2080 10
6	47	29	18	10	32900 00	276155 18	1037 30	573 10	369 00	1979 40
10	50	18	21	10	24370 00	299274 93	1001 55	500 00	333 00	1834 55
7	25	14	11	10	.....	164217 35	647 25	306 50	205 50	1159 25
7	47	30	10	10	65077 50	363429 02	1046 25	648 50	371 50	2065 25

APPENDIX F.—Being a return of business transacted by Surrogate Registrars

COUNTIES OR DISTRICTS.	Number of Probates issued.	Number of Letters of Administration issued.	Number of Letters of Guardianship issued.	Number of Probates and Letters issued under Section 61, Cap. 46, R.S.O., and included in above.	Number of Wills proved Guardianship issued where			
					Above $100,000.	From $50,000 to $100,000.	From $25,000 to $50,000.	From $10,000 to $25,000.
Peterboro'	34	22	2	3	....	.....	1	4
Prescott and Russell	15	12	1	.....	.....	.....	1	2
Prince Edward	31	11	1	.....	.....	.....	.....	1
Renfrew	16	9	.....	.....	.....	.....	.....	1
Simcoe	88	33	5	4	.....	.....	.....	7
Stormont, Dundas and Glengarry	37	32	2	12	.....	.....	1	4
Thunder Bay	.....	6	1	3	.....	.....	.....	.....
Victoria	18	11	2	.....	.....	.....	.....	.....
Waterloo	59	37	1	2	1	.....	1	6
Welland	40	26	2	.....	.....	.....	1	2
Wellington	79	27	.....	21	.....	.....	.....	3
Wentworth	79	67	4	14	3	.....	4	6
York	256	152	14	28	3	4	8	28
Total	2131	1127	130	239	10	11	31	133

throughout the Province of Ontario, etc.—*Continued.*

and Letters of Administration or personalty valued as follows :					Total amount of realty to be Administered.	Total amount of personalty devolving.	Amount of Fees collected by Surrogate Registrar for—			
From $5,000 to $10,000.	From $1,000 to $5,000.	From $500 to $1,000.	From $200 to $500.	$200 and under.			Registrar's Fees.	Judge's Fees.	Fee Fund.	Total.
					$ c	$ c.	$ c.	$ c.	$ c.	$ c.
3	23	11	9	5	39160 00	176555 43	384 00	267 50	184 50	836 00
1	7	5	9	3	.....	81084 86	183 27	74 50	91 50	349 27
2	17	9	8	6	8600 00	72385 00	418 00	151 00	116 00	685 00
3	6	4	10	1	5350 00	48370 34	201 43	116 00	51 50	368 93
6	38	31	20	21	.....	605 00	1002 60	476 50	.....	1479 10
1	29	12	11	13	5189 00	1317 34	545 11	281 50	933 25	1759 86
.....	2	.....	2	2	6300 00	6222 00	45 00	22 00	18 50	85 50
.....	13	7	5	6	6650 00	33217 67	224 23	89 50	69 50	383 23
13	31	20	13	12	40195 00	425700 50	873 95	587 00	386 50	1847 45
8	22	7	13	15	162295 00	180647 78	854 60	449 10	217 00	1520 70
13	39	18	12	21	30620 00	247858 00	960 96	460 50	308 00	1729 46
7	41	34	25	26	20650 00	916385 12	1239 60	1236 50	723 50	3199 60
35	154	70	62	61	89595 00	3146657 00	3338 74	2252 50	2020 50	8111 74
224	1256	684	538	463	1546046 41	11098339 92	28836 94	17208 10	11150 85	57195 89

APPENDIX G.—Referred to in the foregoing Report.

FEES FOR CLERKS OF THE PEACE.

The following shall be the tariff of fees and costs to be allowed, in respect of proceedings in the Court of General Sessions of the Peace, to the Clerk of the Peace :—

1. Drawing precepts to summon the Grand and Petit Juries; attending Justices to sign the same; and transmitting to the Sheriff	$6 00
2. Attending each General Session for the first day	6 00
3. For each additional day, not including time occupied by County Court	4 00
4. Making up records of each General Sessions (when completed), including quarterly record of returns of convictions required by sec. 6, R. S. O. ch. 76	15 00
5. Notice of every appointment of a constable (under R. S. O. ch. 82) or other officer appointed by the Justices in Session, or by the Chairman	25
6. Drawing every special order of the Court of General Sessions necessary to be communicated to any party, and entering it on record	1 00
7. Notice of any order made by the General Sessions, and letter transmitting same, when required to be notified to any person or party	50
8. Copying orders of the Court, and causing the same to be published where it is requisite; for each order, exclusive of the expense of publication, per folio	10
9. For issuing subpœna	75
10. For every subpœna ticket, or copy of a subpœna (when necessary and when not made out or charged for by the County Crown Attorney)	25
11. For issuing Bench warrant	1 00
12. For drawing out and taking every recognizance of the peace, or for good behaviour if the person to be bound is in indigent circumstances	1 00
13. For drawing out and taking every recognizance to appear, whether of a prosecutor, prisoner, or defendant, witness or other person	50
14. For calling parties on their recognizance and recording their non-appearance, for each person called	25
15. For discharging a recognizance	50
16. Drawing order of the Sessions or Chairman to estreat and put in process (on the whole list).	1 00
17. Entering any order of the Sessions, or of the Chairman who presided at the Sessions, to remit any estreat, and recording an entry of the same	50
18. Preparing list each session; specifying names of persons making default under R. S. O. ch. 88, sec. 7	50
19. Entering and extracting upon a roll, in duplicate, the fines, issues, amerciaments, and forfeited recognizances recorded in each session, making oath to the same, and transmitting to the sheriff	2 00
20. Making out and delivering to the sheriff the writ of *fieri facias* and *capias* thereon	75
21. Making out and certifying copy of roll and return of the sheriff, and transmitting it to the Provincial Treasurer	1 00
22. Copies of depositions or examinations furnished to prisoners accused of felony, or their counsel, per folio of 100 words (when required by the accused, or his counsel, and ordered by the Court. This fee not to be charged when copies are furnished by the County Attorney)	10

23. Receiving and filing each indictment, when bill returned by the Grand Jury	$0 50
24. Receiving and filing each presentment of the Grand Jury	50
25. For copy of presentment of the Grand Jury, forwarded by order of the Court of General Sessions to the Government, or to the Inspector of Prisons, or to County Council, per folio	10
26. Arraigning each prisoner, or defendant indicted	75
27. Recording plea, or receiving and filing demurrer	50
28. Empanelling and swearing the Grand Jury	1 00
29. Empanelling and swearing the Petit Jury in every case	75
30. Swearing each witness to go before, or sworn before, the Grand Jury	20
31. Charging the Jury with prisoner or defendant upon each indictment	1 00
32. For filing each exhibit, list, return, or other paper connected with the proceeding in the Court of General Sessions where no charge therefor is specially provided	10
33. Swearing each witness upon any trial or proceeding before the Court	20
34. Receiving and recording verdict of Petit Jury	50
35. Recording each judgment or sentence of the Court upon a verdict or Confession	1 00
36. Making out and delivering to the Sheriff a calendar of the sentences at each Court	1 50
37. Making out a certified copy or abstract of sentences sent with the prisoners to the Penitentiary, Central Prison, or Reformatory after each session	1 00
38. Making up record of conviction or acquittal in any case where it may be necessary	1 00
39. Discharging prisoner by proclamation, each	50
40. Every allowance of Certiorari to be paid by the party applying, except when he is in indigent circumstances	1 00
41. Furnishing to Sheriff and each of the Coroners revised lists of constables, when a revision has been made and when ordered to be done by the Justices in General or Adjourned Sessions, for each list	1 00
42. Reading Statute or public proclamation, when required to be done by law	25
43. Making every copy or extract of a record, or paper, or document of any kind, required to be made by law, or by the order of the Justices in Sessions, or by the order of the Government, in any of its departments, or for the information and use of the Government, when required, and when no charge is fixed by law, per folio	10
44. Causing public notice to be proclaimed in open Court of General Quarter Sessions, of an intention to alter, or rescind previous orders respecting the number and extent of any one or more of the Division Courts limits, under sub-section 3 of section 17, of the Division Courts Act	50
45. Drawing out such orders of Sessions, for altering the limits of Division Courts, per folio	20
46. Making out and transmitting copies of such orders to the Government, per folio	10
47. Making out and transmitting copies of such orders to each Clerk of a Division Court affected by such alterations, per folio	10
48. Making up book of orders of Sessions, declaring the limits of Division Courts (R. S. O. ch. 47, sec. 18)	1 50
49. Making out and transmitting copies (with letter) to the Clerk of each Division Court	1 00
50. Making out and transmitting a copy thereof to the Government	1 00
51. For every necessary certificate, per folio	20
52. Making out and transmitting to the Provincial Treasurer, a return or schedule of all convictions which have taken place before the Court, each list, including letter	1 00
53. Causing notice to be published of any special or adjourned Sessions, when directed by the Chairman, or other two Justices, so to do, besides amount paid for publication	1 00
54. Sending notice of any such Session to the Justices individually, when it is directed by the Chairman, or other two Justices, for each notice	20
55. Attending each adjourned or Special Sessions, and making up record of same, when completed	5 00
56. Making out warrant of distress or commitment, in any case where no fee is specially assigned therefor by any statute, or by this tariff	1 00
57. Swearing constable in open Court	20
58. Receiving, filing, and recording each oath of qualification of a Justice of the Peace	25

59. Every letter written by direction of the Justices in Sessions to the Government, or Justices, or Coroners, or Constables, or others upon matters connected with the business of the Court or the administration of Justice..... $0 25

60. All necessary outlays for postages and publishing to be added in all cases.

[The above Tariff of Fees and Costs shall also be applicable in all proceedings where costs are chargeable or ordered to be paid by private parties, together with the following additional items:—]

61. Certifying the result of each appeal heard and determined by the Court to the convicting Justice, or to any party requesting the same under any statute..... 50

62. For every single search..... 20

63. For every general search..... 50

64. Receiving and filing notices of Appeal and the Appeal from any judgment or conviction by one or more Justices where an appeal is given by law to the Court of General Sessions of the Peace..... 50

65. When an appeal called on reading the conviction, notice of appeal and recognizance..... 50

66. For all other services upon the trial of such appeal case, when tried by a Jury, the same charges as hereinbefore specified in other trials.

67. Issuing process to enforce the order of the Court in appeal case when required by law..... 1 00

NOTE 1st.—When the offices of the Clerk of the Peace and County Crown Attorney shall be held by the same individual and there is a similar or the same fee provided for the same service to each officer, only one fee is to be charged or allowed to the same individual.

NOTE 2nd.—The foregoing tariff shall only apply to proceedings in the Courts of General Sessions of the Peace, and shall not supersede any existing Tariff of Fees for services rendered by the Clerk of the Peace out of Sessions.

68. For each copy of Schedule of the times and places of holding the Division Courts with the order of Sessions and forwarding the same to each Division Court Clerk..... 50

COUNTY ATTORNEY AT GENERAL SESSIONS.

In all cases of Felony tried at the Courts of General Sessions of the Peace, and in all cases of misdemeanor tried thereat, in which no costs have been ordered to be paid, or, if ordered to be paid, cannot be made of the defendant, the County Crown Attorney shall be entitled to receive for the services rendered by him in each such case, the following fees to be paid upon the certificate of the chairman, and to be taken in lieu of, and not in addition to, the fees which have been heretofore payable for services rendered in such cases, viz.:

1. For receiving and examining all informations, depositions, documents and papers connected with a criminal charge..... $2 00

2. For preparing draft and engrossd copy of every indictment, or charge..... 2 00

3. For all business (except items 1 and 2 *ante*, and the following) in conducting the prosecution to judgment, as well before as after trial..... 10 00

4. For every copy of subpœna..... 20

5. For every other service not specified above, and for reports on cases of unusual and important character, *quantum meruit* to be determined by the Attorney-General on a consideration of the particular circumstances.

NOTE 1.—Where a number of charges are pending against the same person, and a conviction has been obtained on one or more indictments, fees, and costs on the further proceedings upon the other charges, are not to be made or allowed on taxation, unless in cases where the chairman would, in the event of additional convictions, impose a heavier sentence, or unless there are special circumstances, which, in the opinion of the Chairman, render it expedient that the other cases, or some of them, should be proceeded with and tried.

NOTE 2.—In cases of indictment for the obstruction, or the non-repair of a highway or bridge, or of indictment for nuisance (where there is a *bona fide* dispute as to boundary, or title, or claim of right, and where no present public inconvenience is being suffered from what is complained of) the County Crown Attorney shall not be entitled to charge costs to the public, without the special sanction of the Attorney-General, but will collect his fees and costs from the parties only.

NOTE 3.—When the offices of County Crown Attorney and Clerk of the Peace, are held by the same individual, and a similar, or the same fee is provided for the same service to each officer, only one fee is to be charged or allowed.

In every case of misdemeanor tried at the Court of General Sessions, in which costs are or may be ordered to be paid by a defendant, the County Crown Attorney shall be entitled to fees as attorney and counsel for services rendered in such case, to be taxed by the Court according to the scale of allowance in the County Courts, as nearly as the nature of such services will allow; such fees, in case of conviction, to form part of the costs payable by a defendant.

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the different year ending 31st

County or District.	County Town.	Office.	Officer.	Amount Earned	Salary paid by the Government.
				$ c.	$ c.
Algoma	Sault St. Marie	Sheriff	W. H. Carney	1778 03	1400 00
		Surrogate Judge	Judge McCrea	22 00	.....
		Local Master	"	.....	.....
		County Attorney	J. J. Kehoe	71 55	400 00
		Clerk of the Peace	"	299 31	400 00
		Local Registrar	T. A. P. Towers	11 50	150 00
		District Court Clerk	"	185 02	650 00
		Surrogate Registrar	"	30 95	.....
Brant	Brantford	Sheriff	W. J. Scarfe	2868 57	.....
		Surrogate Judge	Judge Jones	Commuted at	
		Local Master	"	Commuted at	
		County Attorney	G.R.VanNorman,Q.C.	861 83	.....
		Clerk of the Peace	"	1043 98	.....
		Local Registrar	W. B. Rubidge	808 30	675 00
		County Court Clerk	"	1031 90	.....
		Surrogate Registrar	"	604 10	.....
Bruce	Walkerton	Sheriff	W. Sutton	4411 49	.....
		Surrogate Judge	Judge Kingsmill	Commuted at	
		Local Master	W. A. McLean	445 90	.....
		Deputy Registrar	"	133 10	.....
		County Attorney	Thos. Dixon	520 20	.....
		Clerk of the Peace	"	1706 58	.....
		Deputy Clerk of the Crown	Wm. Gunn	155 10	450 00
		County Court Clerk	"	1101 10	.....
		Surrogate Registrar	"	661 25	.....
Carleton	Ottawa	Sheriff	John Sweetland	6305 90	.....
		Surrogate Judge	Judge Ross	Commuted.	
		Local Master	W. M. Matheson	2593 83	.....
		Deputy Registrar	"	607 54	.....
		County Attorney	Robert Lees, Q.C.	636 15	.....

County Judicial Officers in the Province of Ontario, earned and received during the December, 1887.

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
.....	3178 03	2226 47	213 54	.....	2440 01	1200 28	1239 73	1977 75	
22 00	.....	22 00	.....	22 00	.....	.....	22 00	.....	
.....	22 00	.....	.....	.....	22 00	.....	22 00	22 00	
471 55	.....	455 55	16 00	471 55	.....	.....	471 55	.....	
699 31	1170 86	231 51	106 03	737 54	1209 09	.....	737 54	1170 86	
161 50	.....	161 50	.....	161 50	.....	.....	161 50	.....	
835 02	.....	835 02	.....	835 02	.....	5 00	830 02	.....	
30 95	1027 47	30 95	.....	30 95	1027 47	2 00	28 95	1020 47	
.....	2868 57	2329 12	612 11	.....	2941 23	863 25	2077 98	2905 32	
.....	.....	360 00	.....	360 00	.....	.....	360 00	.....	
.....	.....	577 00	.....	577 00	937 00	25 00	552 00	912 00	
861 83	.....	861 83	.....	861 83	.....	.....	861 83	.....	
1043 98	1905 81	1043 98	.....	1043 98	1905 81	.....	1043 98	1905 81	
1483 30	.....	1483 30	.....	1483 30	.....	267 57	1215 73	.....	
1031 90	.....	1030 60	.....	1030 60	.....	156 47	874 33	.....	
604 10	3119 30	599 05	.....	599 05	3112 95	73 42	525 63	2621 84	
.....	4411 49	3822 96	339 08	.....	4162 04	1256 59	2905 45	3154 90	
.....	408 00	408 00	.....	.....	408 00	.....	.....	408 00	
445 90	.....	272 70	262 20	534 90	.....	5 00	529 90	.....	
133 10	579 00	133 10	.....	133 10	668 00	5 00	128 10	569 00	
520 20	.....	295 70	165 50	461 20	.....	33 55	427 65	.....	
1706 58	2226 78	1098 93	601 42	1700 35	2161 55	156 64	1543 71	2036 59	
605 10	.....	599 05	.....	605 10	.....	.....	605 10	.....	
1101 10	.....	841 10	251 35	1092 45	.....	562 62	529 83	.....	
661 25	2367 45	608 25	138 00	746 25	2443 80	281 17	465 08	1523 66	
.....	6305 90	6329 17	829 26	.....	7158 43	3095 00	4163 43	3210 90	
.....	500 00	500 00	.....	.....	500 00	.....	.....	500 00	
2593 83	.....	2579 53	38 60	2618 13	.....	182 16	2435 97	.....	
607 54	3201 37	606 24	0 10	606 34	3224 47	57 44	548 90	2961 77	
636 15	.....	307 85	28 50	336 35	.....	12 20	324 15	.....	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER.	Amount Earned	Salary paid by the Government.
				$ c.	$ c.
Carleton—*Con*	Ottawa.....	Clerk of the Peace.....	Robt. Lees, Q. C.....	923 77	.....
		Deputy Clerk of the Crown	J. P. Featherston.....	523 20	450 00
		County Court Clerk.....	"	1274 58	.....
		Surrogate Registrar.....	"	961 45	.....
Dufferin.....	Orangeville....	Sheriff	Thos. Bowles	2432 43	.....
		Surrogate Judge.....	Judge McCarthy.....	Commuted at	
		Local Master.....	"	69 40	.....
		County Attorney	J. P. McMillan.....	165 50	.....
		Clerk of the Peace.....	"	651 90	.....
		Local Registrar.....	John McLaren.....	233 00	675 00
		County Court Clerk.....	"	356 65	.....
		Surrogate Registrar.....	"	269 85	.....
Elgin	St. Thomas....	Sheriff	Dugald Brown.....	4532 43	.....
		Surrogate Judge.....	Judge Hughes	428 50	.....
		Local Master.....	Robert Miller.....	553 00	.....
		County Attorney	D. J. Donahue.....	1512 06	.....
		Clerk of the Peace.....	"	1182 88	.....
		Local Registrar.....	D. McLaws.....	456 30	675 00
		County Court Clerk.....	"	774 18	.....
		Surrogate Registrar.....	"	916 74	.....
Essex	Sandwich	Sheriff	J. C. Iler.....	4415 63	.....
		Surrogate Judge.....	Judge Horne	387 50	.....
		Local Master.....	S. S. Macdonell, Q.C..	656 90	.....
		Deputy Registrar.....	" ..	208 46	.....
		County Attorney	" ..	431 40	.....
		Clerk of the Peace.....	" ..	937 61	.....
		Deputy Clerk of the Crown	F. E. Marcon.....	340 79	450 00
		County Court Clerk.....	"	600 00	.....
		Surrogate Registrar.....	"	449 78	.....
Frontenac.	Kingston.....	Sheriff	Wm. Ferguson.....	2202 06	100 00

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
923 77	1559 92	923 77	10 21	933 98	1270 35	29 50	904 48	1518 22	
973 20	.....	785 05	81 00	866 05	.....	219 50	646 55	.....	
1274 58	.....	1139 58	.....	1139 58	2976 73	219 50	920 08	.....	
961 45	3209 23	806 85	164 25	971 10	.....	414 00	557 10	2356 23	
.....	2432 43	2031 70	339 17	.....	2370 87	796 58	1674 29	1635 85	
168 00	.....	168 08	.....	168 00	.....	.....	168 00	.....	
69 40	237 40	42 80	.....	42 80	210 80	2 00	40 80	235 40	
165 50	.....	122 00	15 00	137 00	.....	50 00	87 00	.....	
651 90	817 40	624 31	306 77	931 08	1068 08	100 00	831 08	667 40	
908 00	.....	907 00	3 00	910 00	.....	15 70	894 30	.....	
356 65	... ...	351 80	14 79	366 59	.....	17 10	349 49	.....	
269 85	1534 50	269 85	.....	269 85	1546 44	19 35	250 50	1482 35	
.....	4532 43	3537 30	1260 01	.....	4797 31	1697 45	3099 86	2834 98	
.....	428 50	428 50	.....	.....	428 50	.....	428 50	428 50	
.....	553 00	366 80	75 10	.....	441 90	53 00	388 90	500 00	
1512 06	.....	987 93	419 00	1406 93	.....	54 40	1352 53	....	
1182 88	2694 94	712 28	426 84	1139 12	2546 05	70 00	1069 12	2570 54	
1131 30	.....	1071 95	15 00	1086 95	.....	80 00	1006 95	.....	
774 18	.....	766 62	20 00	786 62	.....	70 00	716 62	.....	
916 74	2822 22	864 89	19 50	884 39	2757 96	125 00	759 39	2547 22	
.....	4415 63	4008 00	407 25	.....	4415 25	1748 35	3666 90	2667 28	
.....	387 50	387 50	.....	.....	387 50	.....	.....	387 50	
656 90	.....	656 90	.....	656 90	.....	.....	656 90	.....	
208 46	.....	208 46	... .	208 46	.....	.....	208 46	.....	
431 40	.....	313 40	36 00	349 40	.....	.....	349 40	.....	
937 61	2234 37	850 16	52 90	903 06	2117 82	... . ..	903 06	2234 37	
690 79	.....	690 79	.....	690 79	.....	.....	690 79	.....	
600 00	.....	600 00	.....	600 00	.....	.....	600 00	.....	
449 78	1740 57	449 78	.....	449 78	1740 57	35 00	414 78	1705 57	
.....	2202 06	2202 06	.....	.....	2202 06	487 51	1714 55	1714 55	

APPENDIX H.—Schedule shewing return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER.	Amount earned.	Salary paid by the Government.
				$ c.	$ c.
Frontenac—*Con*...	Kingston.....	Surrogate Judge.....	Judge Price.....	commuted at	
		Local Master.....	J. A. Henderson, Q.C..	658 46	.....
		Deputy Registrar.....	" ..	350 03	.....
		County Attorney	B. M. Britton, Q.C....	376 52	.....
		Clerk of the Peace	" ..	1121 06	.....
		Deputy Clerk of the Crown	John Fraser.....	133 60	450 00
		County Court Clerk.....	"	597 40	.....
		Surrogate Registrar.....	"	550 70	.....
Grey	Owen Sound...	Sheriff	C. H. Moore.....	4162 39	.....
		Surrogate Judge.....	Judge McPherson.....	323 00	.....
		Local Master.....	Alfred Frost.....	445 83	.....
		County Attorney	"	393 39	.....
		Clerk of the Peace.....	Wm. Armstrong.....	1459 62	.....
		Local Registrar.....	George Inglis	139 50	750 00
		County Court Clerk.....	"	795 75	.....
		Surrogate Registrar.....	"	784 95	.....
Haldimand.....	Cayuga.....	Sheriff	R. H. Davis.....	2019 09	100 00
		Surrogate Judge.....	Judge Upper	183 70	.....
		Local Master.....	"	112 00	.....
		County Attorney	J. R. Martin.....	475 68	.....
		Clerk of the Peace.....	"	1129 78	.....
		Local Registrar.....	Jas. Mitchell.....	72 45	600 00
		County Court Clerk.....	"	234 76	.....
		Surrogate Registrar.....	"	574 50	.....
Halton	Milton	Sheriff	M. Clements.....	1485 80	.....
		Surrogate Judge.....	Judge Miller	commuted at	
		Local Master.....	"	73 80	.....
		County Attorney	No returns made in consequence of		
		Clerk of the Peace.....	"	.....	.....
		Local Registrar.....	W. L. P. Eager	23 50	600 00

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
.....	752 00	752 00	.....	.....	752 00	.....	752 00	752 00	
658 46	.....	263 90	387 78	651 68	.....	84 00	567 68	.....	
350 03	1008 49	193 65	97 07	290 72	942 40	168 24	122 48	756 25	
376 52	.....	328 52	107 50	436 02	.....	63 25	372 77	.....	
1121 06	1497 58	659 81	385 60	1045 41	1481 43	212 40	833 01	1221 93	
583 60	.....	583 60	.....	583 60	.....	177 00	406 60	.....	
597 40	.....	485 30	4 06	489 36	.....	180 00	309 36	.....	
550 70	1731 70	461 77	32 65	494 42	1567 38	190 00	304 42	1184 70	
.....	4162 39	3611 18	1397 80	.....	5008 98	1980 37	3028 61	2182 02	
.....	323 00	323 00	.....	.....	323 00	.....	.....	323 00	
445 83	.....	409 63	159 83	569 46	.....	.....	569 46	.....	
393 39	839 22	232 59	139 70	372 29	941 75	19 94	352 35	819 28	
.....	1459 62	1459 62	293 50	.....	1753 12	115 32	1637 80	1344 30	
889 50	.....	109 50	.....	859 50	.....	27 81	831 69	.....	
795 75	.....	795 75	.....	795 75	.....	33 60	762 15	.....	
784 95	2470 20	618 50	65 50	684 00	2339 25	223 60	460 40	2185 19	
.....	2119 09	1953 73	190 68	.....	2144 41	515 70	1628 71	1604 39	
183 70	.....	183 70	.....	183 70	.....	.....	183 70	.....	
112 00	295 70	59 00	.....	59 00	242 70	.....	59 00	295 70	
475 68	.....	283 12	170 72	453 84	.....	25 00	428 84	.....	
1129 78	1605 46	614 54	382 00	996 54	1450 38	250 00	746 54	1330 46	
672 45	.....	672 45	.....	672 45	.....	5 00	667 45	.....	
234 76	.....	234 76	.....	234 76	.....	10 00	224 76	.....	
574 50	1481 71	574 50	.....	574 50	1481 71	62 00	512 50	1404 71	
.....	1485 80	1329 10	134 41	.....	1463 51	495 59	968 01	990 30	
417 00	.....	.....	.....	417 00	.....	.....	417 00	.....	
73 80	490 80	66 90	25 40	92 30	509 30	4 00	88 30	486 80	
officer's	death.	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	
623 50	.....	623 50	.....	623 50	.....	140 00	483 50	.....	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER.	Amount Earned.	Salary paid by the Government.
				$ c.	$ c.
Halton—*Con.*	Milton	County Court Clerk	W. L. P. Eager	225 95	
		Surrogate Registrar	"	451 23	
Hastings	Belleville	Sheriff	Wm. Hope	4512 16	
		Surrogate Judge	Judge Lazier	348 80	
		Local Master	S. S. Lazier	2310 70	
		Deputy Registrar	"	789 46	
		County Attorney	Geo. E. Henderson, Q.C.	751 40	
		Clerk of the Peace	"	1504 08	
		Deputy Clerk of the Crown	A. G. Northrup	706 91	450 00
		County Court Clerk	"	1358 09	
		Surrogate Registrar	"	702 67	
Huron	Goderich	Sheriff	R. Gibbons	4317 74	
		Surrogate Judge	Judge Toms	753 50	
		Local Master and Deputy Registrar	H. McDermott and S. Malcolmson	commuted at	
		County Attorney	Ira Lewis	560 70	
		Clerk of the Peace	"	1607 10	
		Deputy Clerk of the Crown	D. McDonald	627 45	500 00
		County Court Clerk	"	942 77	
		Surrogate Registrar	"	1199 88	
Kent	Chatham	Sheriff	John Mercer	4223 38	
		Surrogate Judge	Judge Bell	448 00	
		Local Master	R. O'Hara	933 36	
		Deputy Registrar	"	305 50	
		County Attorney	Wm. Douglas, Q.C.	1258 00	
		Clerk of the Peace	"	1500 00	
		Deputy Clerk of the Crown	W. A. Campbell	130 00	450 00
		County Court Clerk	"	654 00	
		Surrogate Registrar	"	517 15	
Lambton	Sarnia	Sheriff	Jas. Flintoft	3168 33	

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
225 95	.....	225 95	.....	225 95	.....	140 00	85 95	.....	
451 23	1300 68	451 23	.....	451 23	1300 68	140 00	311 23	880 68	
.....	4512 16	3844 07	720 17	.....	4564 24	1729 30	2834 94	2791 86	
.....	348 80	348 80	.....	.....	348 80	.....	348 80	348 80	
2310 70	.....	2037 10	383 40	2420 50	.....	300 00	2120 50	.....	
789 46	3100 16	753 20	27 00	780 20	3200 70	250 00	530 20	2550 16	
751 40	.....	686 40	.....	686 40	.....	50 00	636 40	.....	
1504 08	2255 48	1496 90	.....	1496 90	2183 30	300 00	1196 90	1905 48	
1156 91	.....	966 00	.....	966 00	.....	157 00	809 00	.....	
1358 09	.....	809 09	.....	809 09	.....	130 00	679 09	.....	
702 67	3217 67	542 92	.....	542 92	2318 01	212 00	330 92	2718 67	
.....	4317 74	3461 08	578 67	.....	3939 75	2089 32	1850 43	2228 42	
.....	753 50	753 50	.....	.....	753 50	.....	753 50	753 50	
.....	2500 00	2500 00	.....	.....	2500 00	.....	.....	2500 00	
560 70	.....	510 70	11 33	522 03	.....	110 70	411 33	.....	
1607 10	2167 80	1407 10	.....	1407 10	1929 13	520 00	887 10	1537 10	
1127 45	.....	1127 45	.....	1127 45	.....	200 00	927 45	.....	
942 77	.....	942 77	.....	942 77	.....	248 00	694 77	.....	
1199 88	3270 10	1199 88	.....	1199 88	3270 10	300 00	899 88	2522 10	
.....	4223 38	2684 96	2043 28	.....	3494 62	2043 28	1451 34	2180 10	
.....	448 50	448 50	.....	.....	448 50	.....	448 50	448 50	
933 36	.....	800 00	150 00	950 00	.....	31 00	919 00	.....	
305 50	1238 86	250 00	.....	250 00	1200 00	.....	250 00	1207 86	
1258 00	.....	1001 00	60 00	1061 00	.....	100 00	961 00	.....	
1500 00	2758 00	1500 00	.....	1500 00	2561 00	100 00	1400 00	2558 00	
580 00	.....	580 00	.....	580 00	.....	.....	580 00	.....	
654 00	.....	614 00	.....	614 00	.....	423 00	191 00	.....	
517 15	1751 15	533 00	.....	533 00	1727 00	18 00	515 00	1310 15	
.....	3168 33	2179 41	583 46	.....	2762 87	1144 61	1618 26	2023 72	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER.	Amount earned.	Salary paid by the Government.
				$ c.	$ c.
Lambton.—*Con.* ..	Sarnia	Surrogate Judge.....	Judge Robinson.... ..	322 50	.....
		Local Master.....	"	186 46	.....
		County Attorney.....	J. P. Bucke	653 78	.....
		Clerk of the Peace.....	"	1265 50	.....
		Local Registrar...	W. R. Gemmill.... .	216 82	675 00
		County Court Clerk.....	"	583 21	.....
		Surrogate Registrar.....	"	578 37	.....
Lanark.....	Perth	Sheriff.....	Jas. Thompson.....	1511 74	.....
		Surrogate Judge.....	Judge Senkler.....	314 20	.....
		Local Master.....	"	204 43	.....
		County Attorney.....	E. G. Malloch.....	358 85	.....
		Clerk of the Peace.....	"	515 66	..,,,,.
		Local Registrar.....	Charles Rice.....	151 40	675 00
		County Court Clerk	"	381 10	.....
		Surrogate Registrar.....	"	393 66	.....
Leeds & Grenville..	Brockville.....	Sheriff.....	James Smart.....	3434 88	.....
		Surrogate Registrar.....	Judge Macdonald.....	Commuted at	
		Local Master.....	J. D. Buell.....	275 78	.....
		Deputy Registrar.....	"	126 10	....
		County Attorney.....	"	212 30	.....
		Clerk of the Peace.....	"	796 75	.....
		Deputy Clerk of the Crown	S. Reynolds	216 60	500 00
		County Court Clerk.....	"	668 15	.....
		Surrogate Registrar.....	"	797 20	.....
Lennox and Addington.....	Napanee.....	Sheriff.....	O. T. Pruyn	2613 14	.....
		Surrogate Judge.....	Judge Wilkinson.....	commuted at	
		Local Master.....	S. S. Lazier	521 00	.....
		County Attorney.....	A. L. Morden.....	83 10	.....
		Clerk of the Peace.....	"	610 38	.....
		Local Registrar.....	W. P. Deroche.....	285 70	500 00

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
322 50	.....	322 50	.....	322 50	.....	.....	322 50	.....	
186 46	508 96	171 46	.....	171 46	493 96	.....	171 46	508 96	
653 78	.....	554 15	146 32	700 47	.....	16 24	684 23	.....	
1265 50	1919 28	1249 55	333 20	1582 75	2283 22	.....	1582 75	1903 04	
891 82	.....	891 82	.....	891 82	.. ....	8 00	883 82	.....	
583 21	.....	583 21	.....	583 21	.....	8 00	575 21	.....	
578 37	2053 40	578 37	.....	578 37	2053 40	4 00	574 37	2033 40	
.....	1511 74	989 82	441 26	.....	1431 08	443 98	987 10	1067 76	
314 20	.....	314 20	.....	314 20	.....	.....	314 20	....	
204 43	518 63	66 10	68 84	134 94	449 14	11 95	122 99	506 68	
358 85	.....	132 44	283 97	416 41	.....	55 00	361 41	.....	
515 66	874 51	261 73	223 10	484 83	901 24	15 00	469 83	804 51	
826 40	.....	754 50	37 90	792 40	.....	10 00	782 40	.....	
381 10	.....	329 08	67 75	396 83	.....	8 27	388 56	.....	
393 66	1601 16	384 14	52 99	437 13	1626 36	10 15	426 98	1572 74	
.....	3434 88	2846 89	683 42	.....	3530 31	1198 04	2332 27	2236 84	
.....	480 00	480 00	.....	.....	480 00	.....	.....	480 00	
275 78	.....	167 10	21 30	188 40	.....	.....	188 40	.....	
126 10	.. ....	120 75	3 40	124 15	.....	.....	124 15	.....	
212 30	.....	175 50	30 88	206 38	.. .. ..	1 50	204 88	.....	
796 75	1410 93	514 24	353 89	968 13	1487 06	109 00	859 13	1300 43	
716 60	..... .	716 60	.....	716 60	.....	5 00	711 60	.....	
668 15	.....	668 15	.....	668 15	.....	15 00	653 15	.....	
797 20	2181 95	797 20	.....	797 20	2181 95	39 00	758 20	2122 95	
.....	2613 14	1856 68	224 02	.....	2080 70	1356 94	723 76	1256 20	
.....	400 00	.....	.....	.....	400 00	.....	.....	400 00	
521 10	.....	386 00	37 50	423 50	.....	75 00	348 50	446 10	
83 00	... .	67 00	35 00	102 00	.....	8 00	94 00	.....	
610 38	693 38	350 33	223 26	573 59	675 59	72 00	501 59	613 38	
785 70	.....	785 70	.....	785 70	.....	.....	785 70	.....	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER	Amount Earned.	Salary paid by the Government.
				$ c.	$ c.
Lennox and Addington—*Con*...	Napanee.....	County Court Clerk.....	W. P. Deroche.....	389 90	.....
		Surrogate Registrar.....	"	311 10	....
Lincoln.....	St. Catharines..	Sheriff.....	Thomas C. Dawson....	2806 59	... ...
		Surrogate Judge.....	Judge Senkler.....	commuted at	
		Local Master....	F. W. McDonald	814 96	....
		Deputy Registrar	"	358 53	.....
		County Attorney.....	John McKeown.....	534 58	.....
		Clerk of the Peace.....	"	1236 01	.....
		Deputy Clerk of the Crown	J. Clench	281 30	450 00
		County Court Clerk.....	"	610 61	.....
		Surrogate Registrar.....	"	537 48	.....
Middlesex.....	London.....	Sheriff.....	William Glass.....	5709 50	.....
		Surrogate Judge.....	Judge Elliott	commuted at	
		Local Master.....	James Shauly	1672 26	.....
		Deputy Registrar.....	"	834 20	.....
		County Attorney.....	Chas. Hutchison.....	2081 90	.....
		Clerk of the Peace.....	"	2074 25	.....
		Deputy Clerk of the Crown	John Macbeth.....	714 60	500 00
		County Court Clerk.....	"	2310 25	.....
		Surrogate Registrar.....	"	1501 30	.....
Norfolk	Simcoe.....	Sheriff.....	E. Deedes.....	2706 13	.....
		Surrogate Judge.....	Judge Livingston....	232 50	.....
		County Attorney..	J. H. Ansley....	420 72	....
		Clerk of the Peace.....	"	763 65	.....
		Local Master.....	C. C. Rapelje.....	252 35	.....
		Local Registrar.....	"	357 25	675 00
		County Court Clerk.....	"	537 00	.....
		Surrogate Registrar.....	"	485 27	.....
Northumberland & Durham.....	Cobourg.....	Sheriff.....	I. O. Proctor.....	5629 02	.....
		Surrogate Judge.....	Judge Benson	commuted at	

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
389 90	.....	389 90	.....	389 90	.....	.....	389 90	.....	
311 10	1486 70	311 10	.....	311 10	1486 70	.....	311 10	1486 70	
.....	2806 59	1881 99	450 16	.....	2332 15	1234 84	1097 31	1571 75	
.....	566 00	566 00	.....	.....	566 00	.....	.....	566 00	
814 96	.....	569 78	151 35	721 13	.....	20 00	701 13	.....	
358 53	1173 49	268 48	67 80	336 28	1057 41	20 00	316 28	1133 49	
534 58	.....	498 08	.....	498 08	.....	82 00	416 08	....	
1236 01	1770 59	1236 01	.....	1236 01	.....	221 21	1014 80	1467 38	
731 30	.....	721 20	.....	721 20	....	4 65	716 55	.....	
610 61	.....	561 96	33 05	595 01	.....	5 00	590 01	.....	
537 48	1879 39	537 18	.....	537 18	1853 39	130 79	406 39	1738 95	
.....	5709 50	5033 39	69 49	.....	5102 88	3107 00	1995 88	2602 00	
.....	1000 00	1000 00	....	.....	1000 00	.....	.....	1000 00	
1672 26	.. ..	1339 06	... .	1339 06	.....	68 70	1270 36	.....	
834 20	2506 46	834 20	.....	834 20	2173 26	311 75	522 45	2126 01	
2081 90	.....	1237 50	429 00	1666 50	.....	335 40	1331 10	.....	
2074 25	4156 15	1256 28	910 72	2167 00	3833 50	644 19	1522 81	3176 56	
1214 60	.....	1143 80	32 25	1176 05	.....	360 25	815 80	.....	
2310 25	.....	2272 85	19 70	2292 55	.....	360 25	1932 30	.....	
1501 30	5026 15	1486 10	.....	1486 10	4954 70	360 25	1125 85	3945 40	
.....	2706 13	1926 39	878 11	....	2804 50	1137 05	1667 45	1569 08	
.....	232 50	232 50	.....	.....	232 50	... .	232 50	232 50	
420 72	.....	420 72	28 00	448 72	.....	13 84	434 88	. .....	
763 65	1184 37	758 12	25	758 37	1207 09	15 51	742 86	1155 02	
252 35	... .	137 37	73 37	210 74	.....	75	209 99	.....	
1032 25	.....	876 57	82 37	958 94	.....	75	958 19	. .....	
537 00	.....	48 77	150 26	199 03	.....	1 50	197 53	.....	
485 27	2306 87	370 65	45 80	416 45	1785 16	4 00	412 45	2300 62	
..... .	5629 02	3379 14	837 18	.....	4216 32	1867 38	2348 74	3761 44	
.....	600 00	600 00	.....	600 00	.....	.....	600 00	.....	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER.	Amount Earned	Salary paid by the Government.
				$ c.	$ c.
Northumberland & Durham—*Con* ..	Cobourg.....	Local Master.....	J. H. Dumble	Returns not	
		County Atterney	J. W. Kerr.....	1232 57	.....
		Clerk of the Peace.....	"	1240 31	.....
		Local Registrar.....	John Fisher	433 20	750 00
		County Court Clerk	"	924 29	.....
		Surrogate Registrar.....	"	1059 60	.....
Ontario	Whitby	Sheriff	J. F. Paxton.....	3223 45	.....
		Surrogate Judge.....	Judge Burnham	commuted at	
		Local Master.....	Judge Dartnell	799 90	.....
		County Attorney	J. E. Farewell	1045 04	.....
		Clerk of the Peace.....	"	1253 00	.....
		Local Registrar.....	L. T. Barclay.....	240 70	675 00
		County Court Clerk.....	"	681 00	.....
		Surrogate Registrar.....	"	1037 30	. .....
Oxford	Woodstock	Sheriff	George Perry	3088 61	.. ..
		Surrogate Judge.....	Judge Finkle	500 00	.....
		Local Master.....	H. B. Beard, Q.C.....	519 33	.....
		Deputy Registrar.....	"	163 56	.....
		County Attorney	F. R. Ball, Q.C. ...	365 03	.....
		Clerk of the Peace.....	"	1062 16	.....
		Deputy Clerk of the Crown	James Canfield	367 85	450 00
		County Court Clerk.....	"	935 70	.....
		Surrogate Registrar... ..	"	1001 55	.....
Peel	Brampton.....	Sheriff	Robert Broddy.....	2271 09	... .
		Surrogate Judge.....	Judge Scott	commuted at	
		Local Master.....	"	145 15	.....
		County Attorney	W. H. McFadden.....	248 76	....
		Clerk of the Peace.....	"	807 29	.....
		Local Registrar.....	J. A. Austin....	53 25	600 00

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
made in consequence of resignation of Judge Clark.						.....	.....	.....	
1232 57	.....	593 47	104 00	697 47	.....	150 00	547 47	.....	
1240 31	2472 88	737 23	354 64	1091 87	1789 34	275 00	816 87	2047 88	
1183 20	.....	978 40	44 50	1022 90	.....	165 00	857 90	.....	
924 29	.....	539 44	353 20	892 64	.....	420 00	472 64	.....	
1059 60	3167 09	703 89	156 54	860 43	2775 97	125 00	735 43	2457 09	
.....	3223 45	2065 46	552 64	.....	2618 10	1781 25	836 85	1442 20	
.....	540 00	540 00	.....	.....	540 00	.....	.....	540 00	
.....	799 90	799 90	30 00	829 90	.....	.....	829 90	799 90	
1045 04	.....	556 75	132 75	689 50	.....	210 39	479 11	.....	
1253 00	2298 04	853 93	558 89	1412 82	2002 32	306 59	1106 23	1781 06	
915 70	.....	907 70	.....	907 70	.....	10 00	907 70	.....	
681 00	.....	669 40	7 10	676 50	.....	20 00	656 50	.....	
1037 30	2634 00	996 35	12 00	1008 35	2592 55	38 00	970 35	2566 00	
.....	3088 61	2169 62	744 91	.....	....	1119 50	1795 03	1969 11	
.....	500 00	500 00	.....	.....	500 00	.....	500 00	500 00	
519 33	.....	513 33	.....	519 33	.....	.....	519 33	.....	
163 56	682 89	163 56	.....	163 56	682 89	.....	163 56	682 89	
365 03	.....	270 23	28 00	298 23	.....	20 00	278 23	.....	
1062 16	1427 19	869 60	265 86	1135 46	1433 69	37 97	1097 49	1369 22	
817 85	.....	746 20	40 10	786 30	.....	9 30	777 00	.....	
935 70	.....	678 40	135 50	813 90	.....	10 50	803 40	.....	
1001 55	2755 10	789 70	185 30	975 00	2575 20	17 60	957 40	2717 70	
.....	2271 09	1833 37	363 13	.....	2196 50	1015 15	1181 35	1255 94	
240 00	.....	240 00	.....	240 00	.....	.....	240 00	....	
145 15	385 15	134 95	.....	134 95	374 95	.....	134 95	385 15	
248 76	....	193 66	10 00	203 66	.....	15 00	188 66	.....	
807 29	1056 05	684 87	132 59	817 46	1021 12	20 00	797 46	1021 05	
653 25	.....	653 25	....	653 25	.....	7 60	645 65	.....	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

County or District.	County Town.	Office.	Officer.	Amount Earned	Salary paid by the Government.
				$ c.	$ c.
Peel—*Continued*	Brampton	County Court Clerk	J. A. Austin	313 52	
		Surrogate Registrar	"	647 25	
Perth	Stratford	Sheriff	John Hossie	3170 24	
		Surrogate Judge	Judge Woods	648 50	
		Local Master	Judge Lizars	535 15	
		County Attorney	John Idington, Q.C.	514 24	
		Clerk of the Peace	"	721 61	
		Local Registrar	Jas. McFadden	439 80	675 00
		County Court Clerk	"	693 45	
		Surrogate Registrar	"	1046 25	
Peterboro'	Peterboro'	Sheriff	Jas. A. Hall	1961 88	
		Surrogate Judge	Judge Weller	267 50	
		Local Master	"	719 85	
		County Attorney	Robert E. Wood	157 60	
		Clerk of the Peace	"	759 47	
		Local Registrar	John Moloney	264 70	675 00
		County Court Clerk	"	461 35	
		Surrogate Registrar	"	384 05	
Prescott & Russell	L'Orignal	Sheriff	Albert Hagar	1472 51	375 00
		Surrogate Judge	(*Vacant*)		
		Local Master	(*Vacant*)		
		County Attorney	John Maxwell	114 30	
		Clerk of the Peace	"	789 41	
		Local Registrar	John Fraser	41 30	675 00
		County Court Clerk	"	266 25	
		Surrogate Registrar	"	183 37	
Prince Edward	Picton	Sheriff	Jas. Gillespie	1635 13	200 00
		Surrogate Judge	Judge Jellett	151 00	
		Local Master	"	317 58	
		County Attorney	Philip Low, Q. C.	48 25	

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
313 52	.....	306 82	5 20	312 02	.....	6 15	305 87	.....	
647 25	1614 02	640 50	6 75	647 25	1612 52	22 45	624 80	1577 42	
.....	3170 24	2371 55	595 01	.....	2966 56	1346 82	1619 74	1823 42	
648 50	.....	648 50	.....	648 50	.....	.....	648 50	.....	
535 15	.....	329 77	427 49	757 26	.....	30 74	726 52	504 41	
514 24	.....	393 84	123 25	517 09	.....	38 94	478 15	.....	
721 61	1235 85	330 51	330 68	661 19	1178 28	240 00	421 19	956 91	
1114 80	.....	1057 70	5 45	1063 15	.....	150 00	913 15	.....	
693 45	.....	742 25	48 80	793 05	.....	100 00	693 05	.....	
1046 25	2854 50	1009 30	.....	1009 30	2865 50	150 00	859 30	2454 50	
.....	1961 88	1800 17	123 54	.....	1923 71	451 15	1472 56	1510 73	
267 50	.....	267 50	.....	267 50	.....	.....	267 50	.....	
719 85	987 35	719 85	.....	719 85	987 35	.....	719 85	986 35	
157 60	.....	129 77	57 83	187 60	.....	7 28	180 32	.....	
759 47	917 07	710 35	338 35	1048 70	1236 30	13 02	1035 68	896 77	
939 70	.....	939 70	178 12	1117 82	.....	80 00	1037 82	.....	
461 35	.....	461 35	.....	461 35	.....	50 00	411 35	.....	
384 05	1785 10	384 00	.....	384 00	1963 17	.....	384 00	1655 10	
.....	1847 51	1061 20	.....	.....	1061 20	295 21	765 99	1552 30	From May 1st.
Returns not made.				.....	.....	.....	.....	.....	
Returns not made.				.....	.....	.....	.....	.....	
114 30	.....	114 30	.....	114 30	.....	39 00	75 30	.....	
789 41	903 71	785 41	.....	785 41	899 71	9 50	775 91	855 21	
716 30	.....	696 30	35 00	731 30	.....	25 00	706 30	.....	
266 25	.....	235 75	20 50	256 25	.....	25 00	231 25	.....	
183 37	1165 92	165 10	15 75	180 85	1168 40	40 00	140 85	1075 92	
.....	1885 13	1528 94	475 91	.....	2004 85	1214 71	790 14	671 42	
151 00	.....	151 00	.....	151 00	.....	.....	151 00	.....	
317 58	468 58	97 90	263 59	361 49	512 49	.....	361 49	468 58	
48 25	.....	48 25	.....	48 25	.....	53	47 72	.....	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

County or District.	County Town.	Office.	Officer.	Amount Earned.	Salary paid by the Government.
				$ c.	$ c.
Prince Edw'd-*Con.*	Picton	Clerk of the Peace	Philip Low, Q.C.	436 13	.....
		Local Registrar	John Twigg	223 00	600 00
		County Court Clerk	"	407 00	.....
		Surrogate Registrar	"	418 00	.....
Rainy River	Rat Portage	Sheriff	John McQuarrie	476 15	800 00
		Deputy Clerk of the Crown	Frank J. Apjohn	*nil.*	.....
		District Court Clerk	"	64 99	650 00
		Surrogate Registrar	"	*nil.*	.....
Renfrew	Pembroke	Sheriff	James Morris	2385 11	.....
		Surrogate Judge	Judge Deacon	commuted at	
		Local Master	"	18 60	.....
		County Attorney	J. H. Metcalf	36 68	.....
		Clerk of the Peace	"	424 71	.....
		Local Registrar	A. Thomson	118 00	600 00
		County Court Clerk	"	521 00	.....
		Surrogate Registrar	"	201 43	.....
Simcoe	Barrie	Sheriff	T. D. McConkey	7112 55	.....
		Surrogate Judge	Judge Ardagh	commuted at	
		Local Master	J. R. Cotter	743 50	.....
		Deputy Registrar	"	531 05	.....
		County Attorney	"	887 50	.....
		Clerk of the Peace	"	1948 78	.....
		Deputy Clerk of the Crown	J. McL. Stevenson	502 66	500 00
		County Court Clerk	"	1279 05	.....
		Surrogate Registrar	"	1002 60	.....
Stormont, Dundas and Glengarry	Cornwall	Sheriff	D. E. McIntyre	3565 53	.....
		Surrogate Judge	Judge Pringle	281 50	.....
		Local Master	"	704 60	.....
		County Attorney	James Dingwall	354 45	.....
		Clerk of the Peace	"	722 02	.....

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
436 13	484 38	436 13	.....	436 13	484 38	18 74	417 39	465 11	
823 00	.....	808 00	8 00	816 00	.....	.....	816 00	....	
407 00	.....	290 00	32 00	322 00	.....	.....	322 00	.....	
418 00	1648 00	394 00	6 00	400 00	1538 00	.....	400 00	1648 00	
.....	1276 15	1244 37	2 35	.....	1246 72	285 50	960 22	950 65	
.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	714 99	680 60	10 19	690 79	690 79	.....	690 79	714 99	
.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	2385 11	2184 23	202 54	.....	2386 77	1152 56	1234 21	1232 55	
264 00	.....	264 00	.....	264 00	.....	.....	264 00	.....	
18 60	282 60	18 60	.....	18 60	282 60	.....	180 60	282 60	
36 68	.....	36 68	.....	36 68	.....	4 00	32 68	.....	
424 71	461 39	132 28	.....	132 28	168 96	18 79	113 49	438 60	
718 00	.....	718 00	.....	718 00	... .	.....	718 00	.....	
521 00	.....	521 00	.....	521 00	.....	.....	521 00	.....	
201 43	1440 43	201 43	.....	201 43	1440 43	.....	201 43	1440 43	
.....	7112 55	6193 69	1138 10	.....	7331 79	4608 94	2722 85	2503 61	
.....	479 00	.....	.....	.....	479 00	.....	479 00	479 00	
743 50	.....	743 50	.....	743 50	.....	35 00	708 50	.....	
531 05	.....	531 05	.....	531 05	....	23 00	508 05	.....	
887 50	.....	887 50	.....	887 50	. .....	21 75	865 75	.....	
1948 78	4110 83	1948 78	.....	1948 78	4110 83	193 06	1755 72	3838 02	
1002 66	.....	1002 66	.....	1002 66	.....	....	1002 66	.....	
1279 05	.....	1279 05	.....	1279 05	.....	.....	1279 05	..... .	
1002 60	3284 31	1002 60	.....	1002 60	3284 31	320 00	682 60	2964 31	
.....	3565 53	2969 83	586 33	.....	3556 16	993 98	2562 18	2571 55	
281 50	.....	281 50	.....	281 50	.....	.....	281 50	.....	
704 60	986 10	704 60	.....	704 60	986 10	.....	704 60	986 10	
354 45	.....	216 05	43 40	259 45	.....	48 47	210 98	.....	
722 02	1076 47	620 92	226 43	847 35	1106 80	26 14	821 21	1001 86	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

COUNTY OR DISTRICT.	COUNTY TOWN.	OFFICE.	OFFICER.	Amount Earned.	Salary paid by the Government.
				$ c.	$ c.
Stormont, Dundas & Glengarry.-*Con.*	Cornwall	Local Registrar.....	Alex. E. McDonald....	44 00	750 00
		County Court Clerk.....	"	996 73	.....
		Surrogate Registrar.....	"	545 11	.....
Thunder Bay.....	Port Arthur....	Sheriff.....	(*Vacant*).....	1867 74	500 00
		Surrogate Judge	Judge Hamilton.....	22 00	.....
		Local Master..... ...	"	73 50	.....
		County Attorney..... ..	A. R. Lewis.....	242 92	.....
		Clerk of the Peace.....	"	337 53	.....
		Local Registrar....	C. Kreissman	43 65	600 00
		District Court Clerk	"	607 19	....
		Surrogate Registrar.....	"	45 00	.....
Victoria	Lindsay.....	Sheriff.....	John McLennan.....	3149 91	.....
		Surrogate Judge	Judge Dean.....	commuted at	
		Local Master..... ...	"	commuted at	
		County Attorney.	A. P. Devlin.....	167 95	.....
		Clerk of the Peace.	"	965 70	.....
		Local Registrar..	William Grace.....	151 00	675 00
		County Court Clerk.....	"	555 70	.... ..
		Surrogate Registrar.....	"	224 23	.....
Waterloo.....	Berlin..... ..	Sheriff.....	Moses Springer.....	3331 69	100 00
		Surrogate Judge	Judge Miller.....	commuted at	
		Local Master...	Judge Lacourse	commuted at	
		County Attorney.....	W. H. Bowlby.....	707 70	.....
		Clerk of the Peace.....	"	1292 44	.....
		Local Registrar..... ...	John McDougall.... .	175 00	1075 00
		County Court Clerk.....	"	311 55	.....
		Surrogate Registrar.....	A. J. Peterson.....	873 95	.....
Welland.....	Welland.....	Sheriff.....	George W. Duncan....	2120 54	.....
		Surrogate Judge	Judge Baxter	449 10	.....
		Local Master.....	"	334 57	.....

different County Judicial Officers in the Province of Ontario, etc.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
794 00	.....	794 00	.....	794 00	.....	.....	794 00	.....	
996 73	.....	996 73	.....	996 73	.....	.....	996 73	.....	
545 11	2335 84	545 11	.....	545 11	2335 84	170 00	375 11	2165 84	
.....	2367 74	1985 49	280 53	.....	2648 27	571 96	2776 31	1795 78	
22 00	.....	22 00	.....	22 00	.....	.....	22 00	.....	
73 50	95 50	73 50	.....	73 50	95 50	10 50	63 00	85 00	
242 92	.....	162 62	36 00	198 62	.....	.....	198 62	.....	
337 53	580 45	197 41	87 55	284 96	483 58	.....	483 58	580 45	
643 65	.....	643 65	.....	643 65	.....	.....	643 65	.....	
607 19	.....	585 44	20 00	605 44	.....	450 00	155 44	.....	
45 00	1295 84	45 00	.....	45 00	1294 09	.....	45 00	845 84	
.....	3149 91	2165 90	849 99	.....	3015 89	708 65	2307 24	2441 26	
500 00	.....	500 00	.....	500 00	.....	.....	500 00	.....	
900 00	1400 00	900 00	.....	900 00	1400 00	.....	900 00	1400 00	
167 95	.....	230 71	.....	230 71	.....	.....	230 71	.....	
965 70	1133 65	884 30	.....	884 30	1115 01	.....	884 30	1133 65	
826 00	.....	810 25	.....	810 25	.....	.....	810 25	.....	
555 70	.....	520 70	.....	520 70	.....	.....	520 70	.....	
224 23	1605 93	194 50	80 00	274 50	1605 45	37 00	237 50	1568 93	
.....	3431 69	3152 57	226 59	.....	3379 16	1534 77	1844 39	2096 90	
.....	704 00	.....	.....	.....	704 00	.....	.....	704 00	
.....	591 00	.....	.....	.....	591 00	.....	.....	591 00	
707 70	.....	707 70	.....	707 70	.....	100 00	607 70	.....	
1292 44	2000 14	1292 44	.....	1292 44	2000 14	300 00	992 44	1600 14	
1250 00	.....	1250 00	.....	1250 00	.....	.....	1250 00	.....	
311 55	1561 55	311 55	.....	311 55	1561 55	25 00	286 55	1536 55	
873 95	873 95	873 95	.....	.....	873 95	128 00	745 95	745 95	
.....	2120 54	1434 12	.....	.....	1434 12	631 75	802 34	1588 79	
449 10	.....	449 10	.....	449 10	.....	.....	449 10	.....	
334 57	783 67	314 87	48 29	363 16	812 26	15 50	347 66	768 17	

APPENDIX H.—Schedule shewing Return of Fees and Emoluments of the

County or District.	County Town.	Office.	Officer.	Amount earned.	Salary paid by the Government.
				$ c.	$ c.
Welland—*Con.*	Welland	County Attorney	L. D. Raymond	352 30	
		Clerk of the Peace	"	796 60	
		Local Registrar	I. P. Wilson	207 00	1000 00
		County Court Clerk	"	358 65	
		Surrogate Registrar	D. D'Everardo	854 60	
Wellington	Guelph	Sheriff	R. McKim	547 86	
		Surrogate Judge	Judge Drew	commuted at	
		Local Master	A. M. McKinnon	1212 95	
		Deputy Registrar	"	318 63	
		County Attorney	H. W. Peterson	594 00	
		Clerk of the Peace	"	2203 69	
		Deputy Clerk of the Crown	James Hough	65 10	500 00
		County Court Clerk	"	857 65	
		Surrogate Registrar	Alex. Mackenzie	960 96	
Wentworth	Hamilton	Sheriff	Hon. A. McKellar	5922 83	
		Surrogate Judge	Judge Sinclair	commuted at	
		Local Master	Miles O'Reilly, Q.C.	commuted at	
		Local Master and Deputy Registrar	J. E. O'Reilly		
		County Attorney	John Crerar	1322 20	
		Clerk of the Peace	"	1458 78	
		Deputy Clerk of the Crown	S. H. Ghent	316 36	500 00
		County Court Clerk	"	1674 74	
		Surrogate Registrar	"	1239 60	
York	Toronto	Sheriff	(*Vacant*)	12265 23	
		Surrogate Judge	Judge McDougall	2252 50	
		"	Judge Morgan		666 00
		County Attorney	G. W. Badgerow	4306 19	
		Clerk of the Peace	T. H. Bull	3299 59	
		Surrogate Registrar	J. G. Brown	3838 74	
		County Court Clerk	Walter McKenzie	4356 25	
Toronto	Toronto	Sheriff	Fred. Mowat	8630 53	

different County Judicial Officers in the Province of Ontario.—*Continued.*

Total Earnings and Salary.	Total Earnings and Salary by officer in all his offices.	Amount received for present year.	Amount received for previous years.	Total receipts.	Total receipts by officer from all his offices.	Amount disbursed.	Net amount received.	Net amount due to or received by officer by virtue of all his offices.	Remarks.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
352 30	.....	327 30	79 00	406 30	.....	14 00	392 30	.....	
796 60	1148 90	761 45	310 53	1071 98	1478 28	27 25	1044 73	1107 65	
1207 00	.....	1195 95	23 40	1219 35	.....	33 53	1185 82	.....	
358 65	1565 65	339 40	5 30	344 70	1564 05	14 21	330 49	1517 91	
.....	854 60	760 50	48 60	.....	809 10	373 50	435 60	481 10	
.....	547 86	221 70	.....	.....	221 70	86 19	135 51	461 67	From 18th Oct., 1887.
.....	505 00	505 00	.....	.....	505 00	....	.....	505 00	
1212 95	.....	948 95	124 53	1073 48	.....	15 00	1058 48	.....	
318 63	1531 58	216 38	49 45	265 83	1339 31	12 50	253 33	1504 08	
594 00	.....	482 10	73 90	556 00	.. ..	150 00	406 00	....	
2203 69	2797 69	1525 09	561 55	2086 64	2642 64	600 00	1486 64	2047 69	
565 10	.... ..	565 10	.....	565 10	.....	51	564 59	.....	
857 65	1422 75	850 20	1 70	851 90	....	529 30	322 60	892 94	
.. ..	960 96	968 61	22 05	.....	930 66	....	930 66	960 96	
.... ..	5922 83	4709 13	982 63	.....	5691 76	2991 50	2700 26	2931 33	
.....	1000 00	1000 00	.....	.....	1000 00	.....	.....	1000 00	
.....	4500 00	4500 00	.....	.....	4500 00	.....	.....	4500 00	
1322 20	.....	1322 20	.....	1322 20	.....	125 00	1197 20	.....	
1458 78	2780 98	1458 78	.. ..	1458 78	2780 98	75 00	1383 78	2580 98	
816 36	.....	770 06	23 20	793 26	.....	.....	793 26	.....	
1674 74	.....	1445 41	83 60	1529 01	.....	203 50	1325 51	. . ....	
1239 60	3730 70	1199 30	40 05	1239 35	3561 62	128 45	1110 90	3398 75	
.....	11265 23	13875 35	.....	.....	13875 35	6831 34	7044 01	7044 01	
.....	2252 50	2252 50	... ...	.....	2252 50	.....	.....	2252 50	
... .	666 00	666 00	.....	.....	666 00	.....	.....	666 00	
4306 19	....	2872 99	.....	.....	2872 99	754 06	2118 93	3552 13	From 1st of April, 1887.
.....	3299 59	2271 24	1073 23	.....	3344 47	593 35	2751 12	2706 24	
.....	3838 74	3800 49	85 90	.....	3886 39	389 08	3497 31	3449 66	
.....	4356 25	4330 35	5 40	.....	4335 75	1347 03	2988 72	3009 22	
.....	8630 33	6725 06	.....	6725 06	... ...	3773 54	2951 52	4656 99	

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